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API Reference

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Document conventions

Style	Description	Example
Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	Danger: Resetting will result in the loss of user configuration data.
Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	Notice: If the weight is set to 0, the server no longer receives new requests.
Note	A note indicates supplemental instructions, best practices, tips, and other content.	Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click **Settings**> **Network**> **Set network type**.
Bold	Bold formatting is used for buttons , menus, page names, and other UI elements.	Click **OK**.
`Courier font`	Courier font is used for commands	Run the `cd /d C:/window` command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	This format is used for an optional value, where only one item can be selected.	`ipconfig [-all|-t]`
{} or {a|b}	This format is used for a required value, where only one item can be selected.	`switch {active|stand}`

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1.List of operations by function

The following tables list API operations available for use in Smart Access Gateway (SAG).

SAG instance and device management

API	Description
ModifySmartAccessGateway	Modifies the parameters of an SAG instance.
DescribeSmartAccessGateways	Queries SAG instances that you have created.
BindSmartAccessGateway	Associates an SAG instance with a Cloud Connect Network (CCN) instance.
UnbindSmartAccessGateway	Disassociates an SAG instance from the associated CCN instance.
DescribeSmartAccessGatewayVersions	Queries the version of an SAG instance.
GetSmartAccessGatewayUseLimit	Queries the number of SAG instances that you can purchase.
UpdateSmartAccessGatewayVersion	Upgrades an SAG instance to a later version.
DescribeRegions	Queries the most recent list of available regions.
CreateSmartAccessGateway	Creates an SAG instance.
UpgradeSmartAccessGateway	Upgrades the bandwidth of an SAG instance.
DowngradeSmartAccessGateway	Downgrades the bandwidth of an SAG instance.
ActivateSmartAccessGateway	Activates an SAG device.
DescribeSmartAccessGatewayHa	Queries the high availability (HA) settings of an SAG instance.
AddSnatEntry	Adds a source network address translation (SNAT) entry to an SAG instance.
DescribeSnatEntries	Queries SNAT entries associated with an SAG instance.
DeleteSnatEntry	Deletes a SNAT entry from an SAG instance.
AddDnatEntry	Adds a destination network address translation (DNAT) entry to an SAG instance.
DescribeDnatEntries	Queries DNAT entries associated with an SAG instance.
DeleteDnatEntry	Deletes a DNAT entry from an SAG instance.
RebootSmartAccessGateway	Restarts an SAG instance.
UnlockSmartAccessGateway	Unlocks an SAG instance.
ModifySmartAccessGatewayUpBandwidth	Modifies the parameters of an SAG instance.
BindVbr	Associates an SAG instance with a virtual border router (VBR).
GrantSagInstanceToCcn	Authorizes an SAG instance to communicate with CCN instances that are under other Alibaba Cloud accounts.
DescribeGrantSagRules	Queries rules that authorize an SAG instance to communicate with CCN instances under other Alibaba Cloud accounts.
RevokeSagInstanceFromCcn	Disallows an SAG instance to communicate with a CCN instance under another Alibaba Cloud account.

API	Description
ModifySagRemoteAccess	Modifies the IP address used to remotely log on to an SAG instance.
UnbindVbr	Disassociates an SAG instance from the associated VBR.
ClearSagRouteableAddress	Clears the routable addresses of an SAG instance.
DescribeBindableSmartAccessGateways	Queries SAG instances that can be associated with a specific CCN instance.
UnbindSerialNumber	Disassociates an SAG device from the associated SAG instance.
SynchronizeSmartAGWebConfig	Synchronizes the settings of an SAG device to the associated SAG instance.
ModifySagHa	Modifies the HA settings of an SAG instance.
ModifySagUserDns	Modifies the DNS servers used by an SAG instance.
DescribeSagWan4G	Queries information about the 4G subscriber identity module (SIM) card of an SAG device.
ModifySagWifi	Modifies the Wi-Fi settings of an SAG device.
DescribeSagHa	Queries the HA settings of an SAG instance.
DescribeSagUserDns	Queries the DNS servers used by an SAG instance.
DescribeSagCurrentDns	Queries the active DNS server used by an SAG instance.
DescribeSagWifi	Queries the Wi-Fi settings of an SAG device.
DescribeSAGDeviceInfo	Queries information about an SAG device.

CCN instance management

API	Description
CreateCloudConnectNetwork	Creates a CCN instance.
DescribeCloudConnectNetworks	Queries CCN instances that you have created.
ModifyCloudConnectNetwork	Modifies the name and description of a CCN instance.
DeleteCloudConnectNetwork	Deletes a CCN instance.
GetCloudConnectNetworkUseLimit	Queries the number of CCN instances that can be created under the current account in a specific region.
GrantInstanceToCbn	Authorizes a Cloud Enterprise Network (CEN) instance to communicate with a CCN instance.
RevokeInstanceFromCbn	Disallows a CEN instance to communicate with a CCN instance.
DescribeGrantRules	Queries rules that allow a CEN instance to communicate with a CCN instance.

ACL management

API	Description
CreateACL	Creates an access control list (ACL).
DescribeACLAttribute	Queries multiple ACLs at a time. You can query ACLs by ACL name. In this case, you must set the Name parameter.

API	Description
DescribeACLs	Queries information about ACLs.
ModifyACL	Modifies an ACL.
DeleteACL	Deletes an ACL.
AssociateACL	Associates an ACL with an SAG instance.
DisassociateACL	Disassociates an ACL from the associated SAG instance.
AddACLRule	Adds a rule to an ACL.
DeleteACLRule	Deletes a rule from an ACL.
ModifyACLRule	Modifies an ACL rule.

SAG APP management

API	Description
CreateSmartAccessGatewaySoftware	Creates an SAP APP instance.
CreateSmartAccessGatewayClientUser	Creates a client account.
DescribeSmartAccessGatewayClientUsers	Queries client accounts added to an SAG APP instance.
ResetSmartAccessGatewayClientUserPassword	Resets the password of a client account.
DeleteSmartAccessGatewayClientUser	Deletes a client account.
ModifySmartAccessGatewayClientUser	Modifies the bandwidth set for a client account.
DescribeSagOnlineClientStatistics	Queries the information about clients connected to a specified SAG APP instance.
DescribeUserOnlineClientStatistics	Queries the number of clients connected to a specific SAG APP instance.
KickOutClients	Disconnects a client from the specified SAG APP instance based on the instance ID and username of the client account.
DescribeUserOnlineClients	Queries the connection information about a client account based on the ID of the SAP APP instance and username of the client account.
DescribeUserFlowStatistics	Queries data usage of clients accounts added to a specific SAG APP instance.
EnableSmartAccessGatewayUser	Enables a client account that has been added to a specific SAG APP instance.
DisableSmartAccessGatewayUser	Disables a client account added to a specific SAG APP instance.
DowngradeSmartAccessGatewaySoftware	Downgrades the bandwidth of an SAG APP instance.

QoS policy management

API	Description
CreateQos	Creates a quality of service (QoS) policy.
ModifyQos	Modifies a QoS policy, for example, its name.
DeleteQos	Deletes a QoS policy.

API	Description
DescribeQoses	Queries QoS policies.
CreateQosPolicy	Adds a QoS rule that contains 5-tuples to a QoS policy.
ModifyQosPolicy	Modifies a QoS rule that contains 5-tuples.
DeleteQosPolicy	Deletes a QoS policy that contains 5-tuples.
DescribeQosPolicies	Queries QoS rules that contain 5-tuples.
CreateQosCar	Queries the traffic throttling policy in a QoS rule.
ModifyQosCar	Modifies the traffic throttling policy in a QoS rule.
DeleteQosCar	Deletes the traffic throttling policy from a QoS rule.
AssociateQos	Applies a QoS policy to an SAG instance.
DisassociateQos	Disassociates a QoS policy from the associated SAG instance.

Flow log management

API	Description
CreateFlowLog	Creates a flow log.
ModifyFlowLogAttribute	Modifies the settings of a flow log.
DeleteFlowLog	Deletes a flow log.
ActiveFlowLog	Enables a flow log.
DeactiveFlowLog	Disables a flow log.
AssociateFlowLog	Associates a flow log with an SAG instance.
DisassociateFlowLog	Disassociates a flow log from the associated SAG instance.
DescribeFlowLogSags	Queries SAG instances associated with a specific flow log.
DescribeUnbindFlowLogSags	Queries SAG instances that are not associated with a flow log.
DescribeFlowLogs	Queries flow logs.

Route management

API	Description
ModifySagGlobalRouteProtocol	Changes the routing protocol of an SAG instance.
ModifySagRouteProtocolBgp	Modifies the Border Gateway Protocol (BGP) settings of an SAG device.
ModifySagRouteProtocolOspf	Modifies the Open Shortest Path First (OSPF) settings of an SAG instance.
CreateSagStaticRoute	Adds a static route to an SAG instance.
ModifySagStaticRoute	Modifies a static route.
DeleteSagStaticRoute	Deletes a static route from an SAG instance.

API	Description
ModifySagPortRouteProtocol	Changes the routing protocol of a port.
DescribeSagRouteProtocolBgp	Queries the BGP settings of an SAG instance.
DescribeSagGlobalRouteProtocol	Queries the routing protocol of an SAG instance.
DescribeSagStaticRouteList	Queries the list of static routes of an SAG instance.
DescribeSagRouteProtocolOspf	Queries the OSPF settings of an SAG instance.
DescribeSagRouteList	Queries the current route list of an SAG instance.
DescribeSagPortRouteProtocolList	Queries the ports that have the specified routing protocol enabled.

Port management

API	Description
ModifySagPortRole	Modifies the role of a port.
ModifySagManagementPort	Modifies the settings of an SAG device port.
ModifySagWan	Modifies the WAN port settings of an SAG device.
CreateSagExpressConnectInterface	Creates a sub-interface for a leased line port.
ModifySagExpressConnectInterface	Modifies the sub-interface settings of a leased line port.
DeleteSagExpressConnectInterface	Deletes a sub-interface from a leased line port.
DescribeSagExpressConnectInterfaceList	Queries sub-interfaces added to a leased line port.
DescribeSagManagementPort	Queries the management port settings of an SAG device.
DescribeSagWanList	Queries the WAN port settings of an SAG device.
DescribeSagWanSnat	Queries the SNAT settings of the WAN port of an SAG device.
DescribeSagPortList	Queries information about the physical ports of an SAG device.
ModifySagWanSnat	Modifies the SNAT settings of the WAN port of an SAG device.
ModifySagLan	Modifies the LAN port settings of an SAG device.
DescribeSagLanList	Queries the LAN port settings of an SAG device.

Health check management

API	Description
ModifyHealthCheck	Modifies health check settings.
CreateHealthCheck	Creates a health check instance for an SAG instance.
DescribeHealthChecks	Queries health check instances associated with an SAG instance.
DeleteHealthCheck	Deletes a health check instance.
DescribeHealthCheckAttribute	Queries the detailed information about a health check instance.

Route advertisement policy management

API	Description
DescribeRouteDistributionStrategies	Queries route advertisement policies.
ModifyRouteDistributionStrategy	Modifies a route advertisement policy.
DeleteRouteDistributionStrategy	Deletes a route advertisement policy.

2.Call an API operation

To send a Smart Access Gateway (SAG) API request, you must send an HTTP GET request to the SAG endpoint. You must add the request parameters that correspond to the API operation being called. After you call the API operation, the system returns a response. Requests and responses are encoded in UTF-8.

Request structure

SAG API operations use the RPC protocol. You can call SAG API operations by sending HTTP GET requests.

The following request syntax is used:

```
http://endpoint/?Action=xx&parameters
```

Parameter descriptions:

- Endpoint: the endpoint of the SAG API. The endpoint is smartag.cn-shanghai.aliyuncs.com.
- Action: the name of the operation being performed. For example, to query SAG instances that you have created, you must set the Action parameter to DescribeSmartAccessGateways.
- Version: the version of the API that you want to use. The current version of the SAG API is 2018-03-13.
- Parameters: the request parameters for the operation. Separate multiple parameters with ampersands (&).

  Request parameters include both common parameters and operation-specific parameters. Common parameters include the API version number and authentication information.

The following example demonstrates how to call the DescribeSmartAccessGateways operation in SAG:

The sample request is formatted to improve readability.

```
https://smartag.cn-shanghai.aliyuncs.com/?Action=DescribeSmartAccessGateways
&Format=xml
&Version=2018-03-13
&Signature=xxxx%xxxx%3D
&SignatureMethod=HMAC-SHA1
&SignatureNonce=15215528852396
&SignatureVersion=1.0
&AccessKeyId=key-test
&Timestamp=2018-04-01T12:00:00Z
```

API authorization

To ensure the security of your account, we recommend that you use a RAM user to call API operations. Before you call an API operation in SAG as a RAM user, you must create and attach the required policies to the RAM user. For more information, see RAM authentication.

Signature

You must sign all API requests to ensure security. SAG uses the request signature to verify the identity of the API caller.

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

To sign a request, perform the following steps:

1. Construct a normalized request string (Canonicalized Query String) using request parameters.
   i. Request parameters are ordered alphabetically by their names (including public request parameters and user-defined parameters for the given request interfaces described in this document, but excluding the Signature parameter mentioned in public request parameters).

   > **Notice** For a request submitted using the GET method, these parameters constitute the parameter section of the request URL (that is, the section in the URL following "?" and connected by "&").

ii. The name and value of each request parameter are encoded. The names and values must be URL-encoded using the UTF-8 character set. The URL encoding rules are as follows:

a. The characters A-Z, a-z, 0-9, and "-", "_", ".", "~" are not encoded.

b. Other characters are encoded in "%XY" format, with XY representing the characters' ASCII code in hexadecimal notation. For example, the English double quotes (") are encoded as %22.

c. Extended UTF-8 characters are encoded in "%XY%ZA..." format.

d. It must be noted that an English space is encoded as %20, rather than the plus sign (+).

> **Notice** Generally, libraries that support URL encoding (such as Java's java.net.URLEncoder) encode characters according to the rules for the MIME-type "application/x-www-form-urlencoded". If this encoding method is used, replace the plus signs (+) in the encoded strings with %20, the asterisks (*) with %2A, and change %7E back to the tilde (~) to conform to the preceding encoding rules.

iii. Connect the encoded parameter names and values with the equal sign (=).

iv. Sort the parameter name and value pairs connected by equal signs in alphabetical order, and connect them with the (&) symbol to produce the Canonicalized Query String.

2. Follow the following rules to construct the string used for signature calculation by using the Canonicalized Query String constructed in the previous step:

```
StringToSign=
HTTPMethod + "&" +
percentEncode("/") + "&" +
percentEncode(CanonicalizedQueryString)
```

Parameter description:

- HTTPMethod: the HTTP method used for request submission, for example, GET.
- percentEncode("/ "): the coded value for the character "/ " according to the URL encoding rules described in 1.b, namely, "%2F".
- percentEncode(CanonicalizedQueryString): the encoded string of the Canonicalized Query String constructed in Step 1, produced by following the URL encoding rules described in 1.b.

3. Use the preceding signature sting to calculate the signature's HMAC value based on RFC2104 definitions.

> **Notice** The Key used for calculating the signature is the Access Key Secret held by you, which ends with the "&" character (ASCII:38) and is based on the SHA1 hashing.

4. According to Base64 encoding rules, encode the preceding HMAC value into a string, which gives you the signature value.

5. Add the signature to the request as the Signature parameter. The result is the signed API request.

> **Note** When the signature is submitted to SAG as the final request parameter value, the signature must be URL-encoded based on the rules defined in RFC 3986. The following example shows the request URL of the DescribeSmartAccessGateways operation before the request is signed:
>
> ```
> http://smartag.cn-shanghai.aliyuncs.com/?Timestamp=2016-04-23T12:46:24Z&Format=XML&AccessKeyId=testid&
> Action=DescribeSmartAccessGateways&SignatureMethod=HMAC-SHA1&RegionId=region1&SignatureNonce=3ee8c1b8-
> 83d3-44af-a94f-4e0ad82fd6cf&Version=2018-03-13&SignatureVersion=1.0
> ```

6. The following string is the string-to-sign:

```
GET&%2F&AccessKeyId%3Dtestid&Action%DescribeSmartAccessGateways&Format%3DXML&SignatureMethod%3DHMAC-SHA1&S
ignatureNonce%3D3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf&SignatureVersion%3D1.0&Timestamp%3D2018-04-23T12%253A
46%253A24Z&Version%3D2018-03-13
```

7. In this example, the AccessKey ID is testid and the AccessKey secret is testsecret. The secret key that is used to calculate the HMAC value of the string-to-sign is testsecret&. The signature is `CT9X0VtwR86fNWSnsc6v8YGOjuE=`.

The following URL is the signed request URL after the signature is added to the request as the Signature parameter:

```
http://smartag.cn-shanghai.aliyuncs.com/?Timestamp=2016-04-23T12%3A46%3A24Z&Format=XML&AccessKeyId=testid&
Action=DescribeSmartAccessGateways&SignatureMethod=HMAC-SHA1&RegionId=region1&SignatureNonce=3ee8c1b8-83d3
-44af-a94f-4e0ad82fd6cf&SignatureVersion=1.0&Version=2018-03-13&Signature=CT9X0VtwR86fNWSnsc6v8YGOjuE%3D
```

3.RAM authentication

Before calling Smart Access Gateway APIs using a RAM account, you must grant the RAM account the corresponding permission from the primary account by creating an authentication policy. In the authentication policy, an Alibaba Cloud Resource Name (ARN) is used as the unique identifier of the resource to authorize. The following table lists the resource names of Smart Access Gateway APIs.

VPC resources	Resource description in the authorization rule
CreateSmartAccessGateway	acs:smartag:${region-id}:${resource-owner-id}:smartag/*
UpdateSmartAccessGatewayVersion	acs:smartag:${region-id}:${resource-owner-id}:smartag/${smartag-id}
DescribeSmartAccessGateways	acs:smartag:${region-id}:${resource-owner-id}:smartag/*
ModifySmartAccessGateway	acs:smartag:${region-id}:${resource-owner-id}:smartag/${smartag-id}
GetSmartAccessGatewayUseLimit	acs:smartag:${region-id}:${resource-owner-id}:smartag/*
GetCloudConnectNetworkUseLimit	acs:smartag:${region-id}:${resource-owner-id}:ccn/*
CreateCloudConnectNetwork	acs:smartag:${region-id}:${resource-owner-id}:ccn/*
DeleteCloudConnectNetwork	acs:smartag:${region-id}:${resource-owner-id}:ccn/${ccnid}
ModifyCloudConnectNetwork	acs:smartag:${region-id}:${resource-owner-id}:ccn/${ccnid}
DescribeCloudConnectNetworks	acs:smartag:${region-id}:${resource-owner-id}:ccn/*
BindSmartAccessGateway	acs:smartag:${region-id}:${resource-owner-id}:ccn/${ccnid} acs:smartag:${region-id}:${resource-owner-id}:smartag/${smartag-id}
UnbindSmartAccessGateway	acs:smartag:${region-id}:${resource-owner-id}:ccn/${ccnid} acs:smartag:${region-id}:${resource-owner-id}:smartag/${smartag-id}
ActivateSmartAccessGateway	acs:smartag:${region-id}:${resource-owner-id}:smartag/${smartag-id}

4.Common parameters

Common request parameters

Parameter	Type	Required	Description
Format	String	No	The format in which the response is returned. Valid values: *JSON and XML*. Default value: JSON.
Version	String	Yes	The version number of the API. Format: `YYYY-MM-DD`. Valid values: *2018-03-13*
AccessKeyId	String	Yes	The AccessKey ID provided to you by Alibaba Cloud.
Signature	String	Yes	The signature string of the current request.
SignatureMethod	String	Yes	The encryption method of the signature string. Valid values: *HMAC-SHA1*
Timestamp	String	Yes	The timestamp of the request. Specify the time in the ISO 8601 standard in the `YYYY-MM-DDThh:mm:ssZ` format. The time must be in UTC. Example: 2013-01-10T12:00:00Z, which indicates 20:00:00 on January 10, 2013 (UTC+8).
SignatureVersion	String	Yes	The version of the signature encryption algorithm. Set the value to: *1.0*
SignatureNonce	String	Yes	A unique, random number used to prevent replay attacks. You must use different numbers for multiple requests.
ResourceOwnerAccount	String	No	The username of the account that owns the resource that you want to access through this API request.

Sample requests

```
https://smartag.aliyuncs.com/?Action=DescribeSmartAccessGateways
&Format=xml
&Version=2018-03-13
&Signature=xxxx%xxxx%3D
&SignatureMethod=HMAC-SHA1
&SignatureNonce=15215528852396
&SignatureVersion=1.0
&AccessKeyId=key-test
&Timestamp=2018-04-01T12:00:00Z
```

Common response parameters

Every response returns a unique RequestID (`RequestId`) regardless of whether the call is successful.

- XML format

```
<? xml version="1.0" encoding="utf-8"? >
    <!--Result root node-->
    <Operation name+Response>
        <!--Returned request tag-->
        <RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId>
        <!--Response parameters-->
    </Operation name+Response>
```

- JSON format

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

5.SAG instances

5.1. DowngradeSmartAccessGateway

You can call this operation to downgrade the bandwidth of a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DowngradeSmartAccessGateway	The operation that you want to perform. Set the value to **DowngradeSmartAccessGateway**.
AutoPay	Boolean	Yes	true	Specifies whether it is an auto-renewal order generated by a subscription instance. Valid values: • **true**: Yes • **false**: No (default)
BandWidthSpec	Long	Yes	20	The bandwidth of the SAG instance. • If the model of the SAG device is **SAG-100WM**, set the bandwidth to **2 to 50 Mbit/s**. • If the model of the SAG device is **SAG-1000**, set the bandwidth to **10 to 500 Mbit/s**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-nylv14tghsk26c*****	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
OrderId	String	20337777855****	The ID of the order.
RequestId	String	A6B9EB0F-57DB-4843-A372-04678ABF490E	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DowngradeSmartAccessGateway
&AutoPay=true
&BandWidthSpec=20
&RegionId=cn-hangzhou
&SmartAGId=sag-nylv14tghsk26c*****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DowngradeSmartAccessGatewayResponse>
    <RequestId>A6B9EB0F-57DB-4843-A372-04678ABF490E</RequestId>
    <OrderId>20337777855****</OrderId>
</DowngradeSmartAccessGatewayResponse>
```

`JSON` format

```
{
 "OrderId":"20337777855****",
 "RequestId":"A6B9EB0F-57DB-4843-A372-04678ABF490E"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InvalidUserCount	The specified UserCount is invalid.	The error message returned because the specified number of client accounts is invalid.
400	SAG.InvalidDataPlan	The specified DataPlan is invalid.	The error message returned because the specified data transfer plan is invalid.

For a list of error codes, visit the API Error Center.

5.2. BindSmartAccessGateway

You can call this operation to associate a Smart Access Gateway (SAG) instance with a Cloud Connect Network (CCN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	BindSmartAccessGateway	The operation that you want to perform. Set the value to **BindSmartAccessGateway**.
CcnId	String	Yes	ccn-isdjvvkexkrpk*****	The ID of the CCN instance with which you want to associate the SAG instance.
SmartAGId	String	Yes	sag-m7ez44zpayma*****	The ID of the SAG instance.

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGUid	Long	No	1688401595963306	The UID of the Alibaba Cloud account that owns the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	8A3FF8DD-B27D-4ED2-B032-5EF90B38195D	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=BindSmartAccessGateway
&CcnId=ccn-isdjvvkexkrpk*****
&SmartAGId=sag-m7ez44zpayma*****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<BindSmartAccessGatewayResponse>
    <RequestId>6877D55B-08F7-4DA3-916B-32A6FD402E06</RequestId>
</BindSmartAccessGatewayResponse>
```

`JSON` format

```
{
   "RequestId":"6877D55B-08F7-4DA3-916B-32A6FD402E06"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	CidrConflict	Cidr is conflict, Please Check your input.	The error message returned because the specified CIDR blocks overlap with each other. Check the specified CIDR blocks.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all required parameters.
403	InvalidId.CCN	Invalid cloud connect network id.	The error message returned because the specified CCN instance ID is invalid.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.

HttpCode	Error code	Error message	Description
403	SmartAccessGatewayAlreadyBound	The smart access gateway already bound.	The error message returned because the specified SAG instance is already associated with a CCN instance.
500	TunnelIdDistributeError	Tunnel id distribute error.	The error message returned because an error occurred while allocating tunnel IDs.
403	TunnelIdNotEnough	Tunnel id is not enough.	The error message returned because the number of tunnel IDs are insufficient.
500	UpdateError.SMARTAG	Update smart access gateway error.	The error message returned because an error occurred while updating the specified SAG instance.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG has not been activated. Activate the SAG instance first.
400	SAG.NoBindSN	The specified SAG is not bound with a serial number. Please perform binding first.	The error message returned because the SAG instance is not associated with an SAG device. Associate an SAG device with the SAG instance first.
400	SAG.NoBandwidth	Buy bandwidth for the specified SAG instance before binding it to a CCN instance.	The error message returned because the specified SAG instance is not assigned bandwidth resources. Purchase bandwidth resources for the SAG instance before you associate the SAG instance with a CCN instance.
400	NotBoundCEN	Bind the specified CCN instance to a CEN instance first.	The error message returned because the specified CCN instance is not associated with a Cloud Enterprise Network (CEN) instance. Associate the CCN instance with a CEN instance first.
400	SAG.VbrNotBondCen	Bind the specified VBR instance to a CEN instance first.	The error message returned because the specified virtual border router (VBR) is not associated with a CEN instance. Associate the VBR with a CEN instance first.
403	VbrConflict.ChangeSubnet	The subnet of the gateway conflicts with the VBR. Modify the subnet first.	The error message returned because the subnet CIDR blocks of the specified SAG instance overlap with the CIDR block of the VBR. Check the specified CIDR blocks.
400	AlreadyBound.CCN	The specified SAG instance is bound to another CCN instance. Unbind them first.	The error message returned because the specified SAG instance is already associated with another CCN instance. Disassociate the SAG instance from the CCN instance first.

HttpCode	Error code	Error message	Description
400	LinkLevelBackupExists	The specified SAG instance is already used as a leased line backup.	The error message returned because the specified SAG instance is already used as a backup of a leased line.

For a list of error codes, visit the API Error Center.

5.3. UnbindSmartAccessGateway

You can call this operation to disassociate a Smart Access Gateway (SAG) instance from the associated Cloud Connect Network (CCN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UnbindSmartAccessGateway	The operation that you want to perform. Set the value to **UnbindSmartAccessGateway** .
CcnId	String	Yes	ccn-kygbldwikz********	The ID of the CCN instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-0ovhf732a********	The ID of the SAG instance.
SmartAGUid	Long	No	1688401595963306	The UID of the Alibaba Cloud account that owns the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=UnbindSmartAccessGateway
&CcnId=ccn-kygbldwikz********
&RegionId=cn-hangzhou
&SmartAGId=sag-0ovhf732a********
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UnbindSmartAccessGatewayResponse>
    <RequestId>CE6642D4-21EB-4168-9BF9-F217953F9892</RequestId>
</UnbindSmartAccessGatewayResponse>
```

`JSON` format

```
{
   "RequestId":"CE6642D4-21EB-4168-9BF9-F217953F9892"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all required parameters.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.
403	SmartAccessGatewayNotBind	The instance has not yet been bound.	The error message returned because the specified SAG instance is associated with a CCN instance.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	AlreadyBound.CEN	This instance has been bound, please unbind first.	The error message returned because the specified SAG instance is already associated with another CEN instance. Disassociate the SAG instance from the CEN instance first.
400	SAG.DedicatedLineExist	This SAG instance is used as a backup for a leased line. Unbind the SAG instance from the leased line first.	The error message returned because the specified SAG instance is already used as a backup of a leased line. Disassociate the SAG instance from the leased line first.
403	NotBoundCCN	The specified smart access gateway has not bound CCN; please bind CCN first.	The error message returned because the specified SAG instance is not associated with a CCN instance. Associate the SAG instance with a CCN instance first.
400	NotBoundCEN	Bind the specified CCN instance to a CEN instance first.	The error message returned because the specified CCN instance is not associated with a CEN instance. Associate the CCN instance with a CEN instance first.
403	VbrConflict.ChangeSubnet	The subnet of the gateway conflicts with the VBR. Modify the subnet first.	The error message returned because the subnet CIDR blocks of the specified SAG instance overlap with the CIDR block of the VBR. Check the specified CIDR blocks.

For a list of error codes, visit the API Error Center.

5.4. UpgradeSmartAccessGateway

Increases the bandwidth of a Smart Access Gateway (SAG) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
AutoPay	Boolean	Yes	true	Indicates whether to automatically pay the bill for a subscription instance. Valid values: **true | false**. Default value: false
BandWidthSpec	Long	Yes	3	The bandwidth of the SAG instance. • Value range for an SAG-100WM device: 2 to 50. Unit: Mbit/s • Value range for an SAG-1000 device: 10 to 500. Unit: Mbit/s
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SAG instance belongs.
SmartAGId	String	Yes	sag-d3m51apgw4po******	The ID of the SAG instance.
Action	String	No	UpgradeSmartAccessGateway	The name of this action. Value: **UpgradeSmartAccessGateway**
DataPlan	Long	No	5	The amount of free data available for the account. Unit: GB
UserCount	Integer	No	10	The number of accounts that can be created to log on to the SAG APP.

Response parameters

Parameter	Type	Example value	Description
OrderId	String	203384676330296	The ID of the order.
RequestId	String	45F07029-1783-4B2D-B4CE-45B9EAA58440	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? AutoPay=true
&BandWidthSpec=3
&RegionId=cn-hangzhou
&SmartAGId=sag-d3m51apgw4po******
&<CommonParameters>
```

Response example

`XML` format

```
<UpgradeSmartAccessGateway>
      <RequestId>45F07029-1783-4B2D-B4CE-45B9EAA58440</RequestId>
   <OrderId>203384676330296</OrderId>
    </UpgradeSmartAccessGateway>
```

`JSON` format

```
{
 "OrderId":203384676330296,
 "RequestId":"45F07029-1783-4B2D-B4CE-45B9EAA58440"
}
```

Errors

HTTP status code	Error code	Error message	Error message
400	SAG.InvalidUserCount	The specified UserCount is invalid.	The specified number of accounts is invalid.
400	SAG.InvalidDataPlan	The specified DataPlan is invalid.	The specified data plan is invalid.

For a list of error codes, visit the API Error Center.

5.5. DescribeSmartAccessGatewayVersions

Queries the version of a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSmartAccessGatewayVersions	The operation that you want to perform. Set the value to **DescribeSmartAccessGatewayVersions**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-d3m51apgw4po5******	The ID of the SAG instance.
SmartAGSn	String	No	sage62x022502****	The serial number of the SAG device.

Parameter	Type	Required	Example	Description
VersionType	String	No	Device	The type of software run by the SAG device. Valid values: • **Device**: The operating system run by the SAG device. This is the default value. • **Dpi**: The signature database used by the SAG device.

Response parameters

Parameter	Type	Example	Description
RequestId	String	765AB188-69BF-47C6-BEDD-B9FC72BFBB0	The ID of the request.
SmartAGVersions	Array of SmartAGVersion		The information about the version of the SAG instance.
SmartAGVersion			
CreateTime	Long	1522744623000	The timestamp when the version was released.
Type	String	release	The type of the version. Valid values: • **beta**: a preview version. • **release**: an officially released version.
VersionCode	String	1.0	The version number.
VersionName	String	testpackage1	The name of the version.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeSmartAccessGatewayVersions
&RegionId=cn-hangzhou
&SmartAGId=sag-d3m51apgw4po5*****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSmartAccessGatewayVersionsResponse>
    <SmartAGVersions>
          <SmartAGVersion>
                <Type>release</Type>
                <CreateTime>1522744623000</CreateTime>
                <VersionCode>1.0</VersionCode>
                <VersionName>testpackage1</VersionName>
          </SmartAGVersion>
    </SmartAGVersions>
    <RequestId>765AB188-69BF-47C6-BEDD-B9FC72BFBB00</RequestId>
</DescribeSmartAccessGatewayVersionsResponse>
```

`JSON` format

```
{
"SmartAGVersions": {
"SmartAGVersion": [
{
"Type": "release",
"CreateTime": 1522744623000,
"VersionCode": "1.0",
"VersionName": "testpackage1"
}
]
},
"RequestId": "765AB188-69BF-47C6-BEDD-B9FC72BFBB00"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
400	VersionNotExist	The specified version does not exist.	The error message returned because the specified version does not exist.

For a list of error codes, visit the API Error Center.

5.6. GetSmartAccessGatewayUseLimit

You can call this operation to query the number of Smart Access Gateway (SAG) instances that you can purchase.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	GetSmartAccessGatewayUseLimit	The operation that you want to perform. Set the value to **GetSmartAccessGatewayUseLimit** .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	2265DB11-F5CC-496E-ADE7-D043AC37926A	The ID of the request.
TotalAmount	Integer	500	The total number of SAG instances that you can purchase.
UsedAmount	Integer	47	The number of SAG instances that you have purchased.

Examples

Sample requests

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

Sample success responses

`XML` format

```
<GetSmartAccessGatewayUseLimitResponse>
      <RequestId>2265DB11-F5CC-496E-ADE7-D043AC37926A</RequestId>
      <TotalAmount>500</TotalAmount>
      <UsedAmount>47</UsedAmount>
</GetSmartAccessGatewayUseLimitResponse>
```

`JSON` format

```
{
  "RequestId": "2265DB11-F5CC-496E-ADE7-D043AC37926A",
  "TotalAmount": 500,
  "UsedAmount": 47
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.

For a list of error codes, visit the API Error Center.

5.7. DescribeRegions

You can call this operation to query the the most recent list of available regions.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeRegions	The operation that you want to perform. Set the value to **DescribeRegions**.
AcceptLanguage	String	No	zh-CN	The language of the response. Valid values: • **zh-CN (default)**: Chinese • **en-US**: English

Response parameters

Parameter	Type	Example	Description
Regions	Array		The most recent list of available regions.
Region			
LocalName	String	China (Shanghai)	The name of the region.
RegionEndpoint	String	smartag.cn-shanghai.aliyuncs.com	The endpoint of the region.
RegionId	String	cn-shanghai	The ID of the region.
RequestId	String	2F026E79-30AD-47B6-9E7D-D1D4BA77F1F1	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeRegions
&<Common request parameters>
```

Sample success responses

`XML` format

```
<? xml version="1.0" encoding="UTF-8" ? >
<DescribeRegionsResponse>
<RequestId>611CB80C-B6A9-43DB-9E38-0B0AC3D9B58F</RequestId>
<Regions>
 <Region>
  <RegionId>cn-shanghai</RegionId>
  <RegionEndpoint>smartag.cn-shanghai.aliyuncs.com</RegionEndpoint>
  <LocalName>China (Shanghai)</LocalName>
 </Region>
<Regions>
</DescribeRegionsResponse>
```

`JSON` format

```
{
    "RequestId": "2F026E79-30AD-47B6-9E7D-D1D4BA77F1F1",
    "Regions": {
        "Region": [
            {
                "RegionId": "cn-shanghai",
                "RegionEndpoint": "smartag.cn-shanghai.aliyuncs.com",
                "LocalName": "China (Shanghai)"
            }
        ]
    }
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.
501	InnerServiceFailed	Call inner service failed.	The error message returned because an internal error occurred.

For a list of error codes, visit the API Error Center.

5.8. UnbindVbr

Disassociates a Smart Access Gateway (SAG) instance from a virtual border router (VBR).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UnbindVbr	The operation that you want to perform. Set the value to **UnbindVbr**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-pek29fu47tmpj0****	The ID of the SAG instance.
VbrId	String	Yes	vbr-wz90rs6ef1m2fq0yn*****	The ID of the VBR.
VbrRegionId	String	Yes	cn-hangzhou	The ID of the region where the VBR is deployed.
SmartAGUid	Long	No	253460731706911258	The ID of the Alibaba Cloud account to which the SAG instance belongs.

Response parameters

Parameter	Type	Example	Description
RequestId	String	61C33444-D8C5-4018-A06C-BA8C8812BEF6	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UnbindVbr
&RegionId=cn-shanghai
&SmartAGId=sag-pek29fu47tmpj0****
&VbrId=vbr-wz90rs6ef1m2fq0yn****
&VbrRegionId=cn-hangzhou
&SmartAGUid=253460731706911258
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<UnbindVbrResponse>
    <RequestId>61C33444-D8C5-4018-A06C-BA8C8812BEF6</RequestId>
</UnbindVbrResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "61C33444-D8C5-4018-A06C-BA8C8812BEF6"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Forbbiden.SubUser	You are not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
400	NotBoundCEN	Bind the specified CCN instance to a CEN instance first.	The error message returned because the specified CCN instance is not associated with a Cloud Enterprise Network (CEN) instance. Associate the CCN instance with a CEN instance first.
500	InternalError	An error occurred while processing your request.	The error message returned because an unknown error occurred.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
403	VbrConflict.ChangeSubnet	The subnet of the gateway conflicts with the VBR. Modify the subnet first.	The error message returned because the subnet CIDR block of the specified SAG instance overlaps with the CIDR block of the specified VBR. Modify the CIDR block of the subnet.

HttpCode	Error code	Error message	Description
403	NotBoundCCN	The specified smart access gateway has not bound CCN; please bind CCN first.	The error message returned because the specified SAG instance is not associated with a CCN instance. Associate the SAG instance with a CCN instance first.

For a list of error codes, visit the API Error Center.

5.9. ClearSagRouteableAddress

Clears the routable IP address of a Smart Access Gateway (SAG) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	ClearSagRouteableAddress	The name of this action. Value: **ClearSagRouteableAddress**
SagId	String	Yes	sag-0phdojgu5tqr1p****	The ID of the SAG instance.
RegionId	String	No	cn-shanghai	The ID of the region to which the SAG instance belongs.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	AEEC8A5A-360E-4865-82D4-38CDE46445FB	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=ClearSagRouteableAddress
&SagId=sag-0phdojgu5tqr1p****
&<CommonParameters>
```

Response example

`XML` format

```
<ClearSagRouteableAddressResponse>
  <RequestId>AEEC8A5A-360E-4865-82D4-38CDE46445FB</RequestId>
</ClearSagRouteableAddressResponse>
```

`JSON` format

```
{
 "RequestId":"AEEC8A5A-360E-4865-82D4-38CDE46445FB"
}
```

Errors

For a list of error codes, visit the API Error Center.

5.10. DescribeBindableSmartAccessGateways

Queries Smart Access Gateway (SAG) instances in a region that can be associated with a Cloud Connect Network (CCN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeBindableSmartAccessGateways	The operation that you want to perform. Set the value to **DescribeBindableSmartAccessGateways**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instances are deployed.
CcnId	String	No	ccn-fu75a6m4clv7ai****	The ID of the CCN instance.
CrossAccount	Boolean	No	false	Specifies whether to query only the SAG instances that cross Alibaba Cloud accounts. Default value: false. Valid values: • **false**: queries all the SAG instances no matter whether the SAG instances cross Alibaba Cloud accounts. • **true**: queries only the SAG instances that cross Alibaba Cloud accounts.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Maximum value: **50**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
SmartAGId	String	No	sag-00uc4vgxch1zsu****	The ID of the SAG instance.
Name	String	No	sdggd111	The name of the SAG instance. The name must be 2 to 128 characters in length and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	2	The total number of SAG instances.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	9731C2F5-B9A4-42FD-AFD2-361A403E6E85	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.
SmartAccessGateways	Array of SmartAccessGateway		The list of SAG instances.
SmartAccessGateway			
SmartAGId	String	sag-00uc4vgxch1zsu****	The ID of the SAG instance.
Name	String	sdggd111	The name of the SAG instance.
SmartAGUid	Long	168840159596****	The user ID (UID) of the Alibaba Cloud account to which the SAG instance belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeBindableSmartAccessGateways
&RegionId=cn-shanghai
&CcnId=ccn-fu75a6m4clv7ai****
&CrossAccount=false
&PageSize=10
&PageNumber=1
&SmartAGId=sag-00uc4vgxch1zsu****
&Name=sdggd111
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeBindableSmartAccessGatewaysResponse>
<PageNumber>1</PageNumber>
<PageSize>10</PageSize>
<RequestId>9731C2F5-B9A4-42FD-AFD2-361A403E6E85</RequestId>
<SmartAccessGateways>
    <SmartAccessGateway>
        <Name>zhen****-for-acl-performance-sag-154381343****</Name>
        <SmartAGId>sag-00uc4vgxch1zsu****</SmartAGId>
        <SmartAGUid>168840159596****</SmartAGUid>
    </SmartAccessGateway>
    <SmartAccessGateway>
        <Name>zhen****-for-acl-performance-sag-154383278****</Name>
        <SmartAGId>sag-0bs2aephgv7zfo****</SmartAGId>
        <SmartAGUid>168840159596****</SmartAGUid>
    </SmartAccessGateway>
</SmartAccessGateways>
<TotalCount>2</TotalCount>
</DescribeBindableSmartAccessGatewaysResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "PageNumber" : 1,
  "PageSize" : 10,
  "RequestId" : "9731C2F5-B9A4-42FD-AFD2-361A403E6E85",
  "SmartAccessGateways" : {
    "SmartAccessGateway" : [ {
      "Name" : "zhen****-for-acl-performance-sag-154381343****",
      "SmartAGId" : "sag-00uc4vgxch1zsu****",
      "SmartAGUid" : "168840159596****"
    }, {
      "Name" : "zhen****-for-acl-performance-sag-154383278****",
      "SmartAGId" : "sag-0bs2aephgv7zfo****",
      "SmartAGUid" : "168840159596*****"
    } ]
  },
  "TotalCount" : 2
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	CCN.InvalidId	You must specify the CCN instance ID.	The error message returned because the specified CCN instance ID does not exist.
400	InvalidRegionID	The specified regionId does not exist.	The error message returned because the specified region ID does not exist.

For a list of error codes, visit the API Error Center.

5.11. UnbindSerialNumber

Disassociates a Smart Access Gateway (SAG) device from an SAG instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-shanghai	The ID of the region to which the SAG instance belongs.
SerialNumber	String	Yes	cn-sh-0-0927-16****	The serial number of the SAG device to be disassociated.
SmartAGId	String	Yes	sag-0phdojgu5tqr1p****	The ID of the SAG instance.
Action	String	No	UnbindSerialNumber	The name of this action. Value: **UnbindSerialNumber**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	284045DE-4C2D-463D-9F27-B6898E67D120	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=UnbindSerialNumber
&RegionId=cn-shanghai
&SerialNumber=cn-sh-0-0927-16****
&SmartAGId=sag-0phdojgu5tqr1p****
&<CommonParameters>
```

Response example

`XML` format

```
<UnbindSerialNumberResponse>
  <RequestId>284045DE-4C2D-463D-9F27-B6898E67D120</RequestId>
</UnbindSerialNumberResponse>
```

`JSON` format

```
{
 "RequestId":"284045DE-4C2D-463D-9F27-B6898E67D120"
}
```

Errors

For a list of error codes, visit the API Error Center.

5.12. BindSerialNumber

You can call this operation to associate a Smart Access Gateway (SAG) device with an SAG instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	BindSerialNumber	The operation that you want to perform. Set the value to **BindSerialNumber**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SerialNumber	String	Yes	sage62x021922****	The serial number (SN) of the SAG device.
SmartAGId	String	Yes	sag-r79m060r6oy55******	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	61C33444-D8C5-4018-A06C-BA8C8812BEF6	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=BindSerialNumber
&RegionId=cn-hangzhou
&SerialNumber=sage62x021922****
&SmartAGId=sag-r79m060r6oy55******
&<Common request parameters>
```

Sample success responses

`XML` format

```
<BindSerialNumberResponse>
  <RequestId>61C33444-D8C5-4018-A06C-BA8C8812BEF6</RequestId>
</BindSerialNumberResponse>
```

`JSON` format

```
{
 "RequestId":"61C33444-D8C5-4018-A06C-BA8C8812BEF6"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not specified.

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
400	SAG.SnOverLimit	The maximum number of serial numbers bound to the SAG instance is exceeded.	The error message returned because the number of SAG devices that can be associated with the SAG instance has reached the upper limit.
400	SAG.SnConflict	The specified SerialNumber has been bound to another SAG instance.	The error message returned because the specified SAG device has already been associated with another SAG instance.
400	ResourceInOperating	The specified resource is being used. Please try later.	The error message returned because the specified resource is being managed. Try again later.

For a list of error codes, visit the API Error Center.

5.13. SynchronizeSmartAGWebConfig

You can call this operation to synchronize the settings of a Smart Access Gateway (SAG) device to the associated SAG instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	SynchronizeSmartAGWebConfig	The operation that you want to perform. Set the value to **SynchronizeSmartAGWebConfig**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-nylv14tghsk26c****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number (SN) of the SAG device.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CBBE5EBF-69C1-4395-B36B-26B7605F87EA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=SynchronizeSmartAGWebConfig
&RegionId=cn-shanghai
&SmartAGId=sag-nylv14tghsk26c****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<SynchronizeSmartAGWebConfigResponse>
      <RequestId>CBBE5EBF-69C1-4395-B36B-26B7605F87EA</RequestId>
</SynchronizeSmartAGWebConfigResponse>
```

`JSON` format

```
{
 "RequestId":"CBBE5EBF-69C1-4395-B36B-26B7605F87EA"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the version of the specified SAG instance does not support ACLs.
400	SAG.SoftwareNotSupportFeature	The specified SAG Software instance does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is disconnected form Alibaba Cloud.

For a list of error codes, visit the API Error Center.

5.14. ModifySagHa

You can call this operation to modify the high availability (HA) settings for Smart Access Gateway (SAG) devices.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagHa	The operation that you want to perform. Set the value to **ModifySagHa**.
Mode	String	Yes	NONE	The HA mode. Valid values: • **NONE**: disables HA. • **STATIC**: enables static HA. • **DYNAMIC**: enables dynamic HA.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number (SN) of the SAG device.
PortName	String	No	5	The name of the port. **Note** If you select the static HA mode, you must specify the port name.
VirtualIp	String	No	192.XX.XX.5	The virtual IP address of the SAG instance. **Note** If you select the static HA mode, you must specify the virtual IP address.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3200E8A3-563F-4FFC-8BDB-0F1263FA69E8	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagHa
&Mode=NONE
&PortName=5
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagHaResponse>
    <RequestId>3200E8A3-563F-4FFC-8BDB-0F1263FA69E8</RequestId>
</ModifySagHaResponse>
```

`JSON` format

```
{
"RequestId":"3200E8A3-563F-4FFC-8BDB-0F1263FA69E8"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.HaPortExist	The specified port is used by the HA configuration.	The error message returned because the specified port is already specified in the HA configuration.
400	Sag.HaPortRoleError	The specified port does not support HA configuration.	The error message returned because the specified port does not support HA.
400	Sag.HaTypeNotAllow	The specified device does not support the configuration of the specified type.	The error message returned because the SAG device does not support the specified HA mode.

For a list of error codes, visit the API Error Center.

5.15. ModifySagUserDns

You can call this operation to modify the DNS servers of a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagUserDns	The operation that you want to perform. Set the value to **ModifySagUserDns**.
MasterDns	String	Yes	192.XX.XX.1	The IP address of the primary DNS server. **Note** If you do not set this parameter, the IP address of the existing DNS server will be cleared.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.

Parameter	Type	Required	Example	Description
SlaveDns	String	Yes	192.XX.XX.2	The IP address of the secondary DNS server. **Note** If you do not set this parameter, the IP address of the existing DNS server will be cleared.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number (SN) of the SAG device.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1120228A-E5E1-4E9C-B56D-96887E1A2B2F	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagUserDns
&MasterDns=192.XX.XX.1
&RegionId=cn-shanghai
&SlaveDns=192.XX.XX.2
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagUserDnsResponse>
      <RequestId>1120228A-E5E1-4E9C-B56D-96887E1A2B2F</RequestId>
</ModifySagUserDnsResponse>
```

`JSON` format

```
{
"RequestId": "1120228A-E5E1-4E9C-B56D-96887E1A2B2F"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the specified SAG instance does not support ACLs.

HttpCode	Error code	Error message	Description
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG has not been activated. Activate the SAG instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is disconnected from Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network settings are not synchronized between the SAG device and instance.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG instance does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

5.16. DescribeSagWan4G

You can call this operation to query information about the 4G subscriber identity module (SIM) card of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagWan4G	The operation that you want to perform. Set the value to **DescribeSagWan4G**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.

Parameter	Type	Required	Example	Description
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device.

Response parameters

Parameter	Type	Example	Description
Ip	String	192.XX.XX.1	The IP address of the 4G SIM card.
Mac	String	c4:00:ad:a2:f5:****	The MAC address of the 4G SIM card.
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.
Status	String	Normal	The status of the 4G SIM card. Valid values: • **normal**: The 4G SIM card works as expected. • **Abnormal**: The 4G SIM card does not work as expected. • **Unavailable**: No 4G SIM card is inserted.
Strength	String	High	The signal strength of the 4G SIM card. Valid values: • **High**: strong signals. • **Middle**: medium-strength signals. • **Low**: weak signals. • **Unavailable**: no signal.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagWan4G
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagWan4GResponse>
     <RequestId>CE6642D4-21EB-4168-9BF9-F217953F9892</RequestId>
     <Ip>192.XX.XX.1</Ip>
     <Mac>c4:00:ad:a2:f5:****</Mac>
     <Status>Normal</Status>
     <Strength>High</Strength>
</DescribeSagWan4GResponse>
```

`JSON` format

```
{
    "RequestId": "CE6642D4-21EB-4168-9BF9-F217953F9892",
    "Ip": "192.XX.XX.1",
    "Mac": "c4:00:ad:a2:f5:****",
    "Status": "Normal",
    "Strength": "High"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the specified SAG instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is disconnected.
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network settings are not synchronized between the SAG device and instance.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG instance does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

5.17. ModifySagWifi

You can call this operation to modify the Wi-Fi settings of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagWifi	The operation that you want to perform. Set the value to **ModifySagWifi**.
IsEnable	String	Yes	True	Specifies whether Wi-Fi is enabled. Valid values: • **true**: enables Wi-Fi. • **False**: disables Wi-Fi.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device.
SSID	String	Yes	aliyun_sag_123456***	The service set identifier (SSID) of the Wi-Fi network. The name must be 1 to 31 characters in length, and can contain digits and letters.
IsBroadcast	String	No	True	Specifies whether broadcast over Wi-Fi is enabled. Valid values: • **true**: enables broadcast. • **False**: disables broadcast. **Note** Only after you enable broadcast, terminals that support wireless connections can search the Wi-Fi network by its SSID and receive Wi-Fi signals.
Channel	String	No	Automatic	The Wi-Fi channel. Valid values: **0 to 11**.
Bandwidth	String	No	Automatic	The bandwidth of the channel. Valid values: • **Automatic** • **20 MHz** • **40 MHz**
IsAuth	String	No	True	Specifies whether wireless security is enabled. Valid values: • **true**: enables wireless security. • **False**: disables wireless security.

Parameter	Type	Required	Example	Description
AuthenticationType	String	No	WPA2-PSK	The authentication type. Valid values: • **NONE** • **WPA-PSK** • **WPA2-PSK**
EncryptAlgorithm	String	No	AUTO	The encryption algorithm. Valid values: • **AUTO**: automatically selects the encryption algorithm. • **TKIP**: uses the Temporal Key Integrity Protocol (TKIP). • **AES**: uses the Advanced Encryption Standard authorized by Wi-Fi®.
Password	String	No	12345678	The password used to connect to the Wi-Fi network. The password must be 8 to 32 characters in length, and can contain digits and letters.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1120228A-E5E1-4E9C-B56D-96887E1A2B2F	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagWifi
&IsEnable=True
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&SSID=aliyun_sag_123456***
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagWifiResponse>
     <RequestId>1120228A-E5E1-4E9C-B56D-96887E1A2B2F</RequestId>
</ModifySagWifiResponse>
```

`JSON` format

```
{
"RequestId": "1120228A-E5E1-4E9C-B56D-96887E1A2B2F"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidId.SMARTAG	The specified smart access gateway instance ID does not exist.	The error message returned because the specified SAG instance ID does not exist.

For a list of error codes, visit the API Error Center.

5.18. DescribeSagHa

You can call this operation to query the high availability (HA) configuration of a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagHa	The operation that you want to perform. Set the value to **DescribeSagHa**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device.

Response parameters

Parameter	Type	Example	Description
Mode	String	NONE	The HA mode. Valid values: • **NONE**: HA is disabled. • **STATIC**: static HA is enabled. • **DYNAMIC**: dynamic HA is enabled.
Ports	Array		The information about the port.
PortName	String	5	The name of the port.
VirtualIp	String	192.XX.XX.1	The virtual IP address of the SAG device.
RequestId	String	273D62FD-E346-4959-AA18-D79B9276FEFB	The ID of the request.
TaskStates	Array		The information about the query task.
CreateTime	String	1586836343000	The time when the query task was created.

Parameter	Type	Example	Description
ErrorCode	String	200	The error code returned for a query task. The 200 error code indicates that the query task is successful.
ErrorMessage	String	Successful	The error message returned for a query task. The Successful error message indicates that the query task is successful.
State	String	Succeed	The status of the query task. Valid values: • **Initialized**: The query task has been initialized. • **Offline**: The query task is not dispatched because the SAG device is disconnected from Alibaba Cloud. The task will be dispatched after the SAG device is connected to Alibaba Cloud. • **Succeed**: The query task has been dispatched. • **Processing**: The query task is being dispatched. • **VersionNotSupport**: The current version of the SAG device does not support query tasks. • **BuildRequestError**: The SAG control system does not support query tasks. • **HardwareError**: The query task failed to be dispatched due to device errors. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The query task is not dispatched because the SAG device is disconnected from Alibaba Cloud. The task will not be dispatched after the device is connected to Alibaba Cloud.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagHa
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagHaResponse>
  <RequestId>0EF71E33-011D-45DC-B942-8F1241D931E3</RequestId>
  <Mode>DYNAMIC</Mode>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586836343000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagHaResponse>
```

`JSON` format

```
{
 "RequestId": "0EF71E33-011D-45DC-B942-8F1241D931E3",
 "Mode": "DYNAMIC",
 "TaskStates": [
  {
   "State": "Succeed",
   "CreateTime": 1586836343000,
   "ErrorCode": "200",
   "ErrorMessage": "Successful"
  }
 ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the specified SAG instance does not support ACLs.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. You must renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is disconnected from Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the SAG device is disconnected from Alibaba Cloud. The operation failed.
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network settings are not synchronized between the SAG device and instance.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

5.19. DescribeSagUserDns

You can call this operation to query the DNS servers used by a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagUserDns	The operation that you want to perform. Set the value to **DescribeSagUserDns**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number (SN) of the SAG device.

Response parameters

Parameter	Type	Example	Description
MasterDns	String	192.XX.XX.1	The IP address of the primary DNS server.
RequestId	String	0937DEA0-AB4B-42F4-9314-07B97D30282B	The ID of the request.
SlaveDns	String	192.XX.XX.2	The IP address of the secondary DNS server.
TaskStates	Array		The information about the query task.
CreateTime	String	1586852928000	The time when the query task was created.
ErrorCode	String	200	The error code returned for a query task. The 200 error code indicates that the query task is successful.
ErrorMessage	String	Successful	The error message returned for a query task. The Successful error message indicates that the query task is successful.

Parameter	Type	Example	Description
State	String	Succeed	The status of the query task. Valid values: • **Initialized**: The query task has been initialized. • **Offline**: The query task is not dispatched because the SAG device is disconnected from Alibaba Cloud. The task will be dispatched after the SAG device is connected to Alibaba Cloud. • **Succeed**: The query task has been dispatched. • **Processing**: The query task is being dispatched. • **VersionNotSupport**: The current version of the SAG device does not support query tasks. • **BuildRequestError**: The SAG control system does not support query tasks. • **HardwareError**: The query task failed to be dispatched due to device errors. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The query task is not dispatched because the SAG device is disconnected from Alibaba Cloud. The task will not be dispatched after the device is connected to Alibaba Cloud.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagUserDns
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagUserDnsResponse>
  <RequestId>9D6594D7-F265-47D1-9F41-D4B2A9F9D3BC</RequestId>
  <SlaveDns>2.XX.XX.2</SlaveDns>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586852928000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
  <MasterDns>1.XX.XX.1</MasterDns>
</DescribeSagUserDnsResponse>
```

`JSON` format

```
{
 "RequestId": "9D6594D7-F265-47D1-9F41-D4B2A9F9D3BC",
 "SlaveDns": "2.XX.XX.2",
 "TaskStates": [
  {
   "State": "Succeed",
   "CreateTime": 1586852928000,
   "ErrorCode": "200",
   "ErrorMessage": "Successful"
  }
 ],
 "MasterDns": "1.XX.XX.1"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the version of the specified SAG instance does not support ACLs.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is disconnected form Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network settings are not synchronized between the SAG device and instance.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

5.20. DescribeSagCurrentDns

You can call this operation to query the DNS servers used by a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagCurrentDns	The operation that you want to perform. Set the value to **DescribeSagCurrentDns**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device.

Response parameters

Parameter	Type	Example	Description
MasterDns	String	223.XX.XX.5	The IP address of the primary DNS server.
RequestId	String	0937DEA0-AB4B-42F4-9314-07B97D30282B	The ID of the request.
SlaveDns	String	114.XX.XX.114	The IP address of the secondary DNS server.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagCurrentDns
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagCurrentDnsResponse>
  <RequestId>45AA1C4F-4E04-4B70-84D4-3F24DD64688F</RequestId>
  <SlaveDns>223.XX.XX.5</SlaveDns>
  <MasterDns>114.XX.XX.114</MasterDns>
</DescribeSagCurrentDnsResponse>
```

`JSON` format

```
{
 "RequestId": "45AA1C4F-4E04-4B70-84D4-3F24DD64688F",
 "SlaveDns": "223.XX.XX.5",
 "MasterDns": "114.XX.XX.114"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the version of the specified SAG instance does not support ACLs.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is disconnected from Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is disconnected from Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network settings are not synchronized between the SAG device and instance.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

5.21. DescribeSagWifi

You can call this operation to query the Wi-Fi settings of a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagWifi	The operation that you want to perform. Set the value to **DescribeSagWifi**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number (SN) of the SAG device.

Response parameters

Parameter	Type	Example	Description
AuthenticationType	String	WPA2-PSK	The authentication type. Valid values: • **NONE**: authentication is disabled. • **WPA-PSK**: WPA-PSK authentication is enabled. • **WPA2-PSK**: WPA2-PSK authentication is enabled.
Bandwidth	String	Automatic	The bandwidth of the Wi-Fi channel. Valid values: • **Automatic** • **20 HMz** • **40 MHz**
Channel	String	0	The Wi-Fi channel.
EncryptAlgorithm	String	AES	The encryption algorithm. • **AUTO**: automatically selects the encryption algorithm. • **TKIP**: uses the Temporal Key Integrity Protocol (TKIP). • **AES**: uses the Advanced Encryption Standard authorized by Wi-Fi®.
IsAuth	String	True	Indicates whether wireless security is enabled. • **True**: wireless security is enabled. • **False**: wireless security is disabled.
IsBroadcast	String	True	Indicates whether broadcast over Wi-Fi is enabled. Valid values: • **True**: broadcast is enabled. • **False**: broadcast is disabled.

Parameter	Type	Example	Description
IsEnable	String	True	Indicates whether wireless connections are enabled. Valid values: • **True**: wireless connections are enabled. • **False**: wireless connections are disabled.
RequestId	String	E93884AC-6C21-4FEA-8E3A-7377D33B194F	The ID of the request.
Ssid	String	aliyun_sag_123456***	The service set identifier (SSID) of the Wi-Fi network.
TaskStates	Array		The information about the query task.
CreateTime	String	1586843621000	The time when the query task was created.
ErrorCode	String	200	The error code returned for a query task. The 200 error code indicates that the query task is successful.
ErrorMessage	String	Successful	The error message returned for a query task. The Successful error message indicates that the query task is successful.
State	String	Succeed	The status of the query task. Valid values: • **Initialized**: The query task has been initialized. • **Offline**: The query task is not dispatched because the SAG device is disconnected from Alibaba Cloud. The task will be dispatched after the SAG device is connected to Alibaba Cloud. • **Succeed**: The query task has been dispatched. • **Processing**: The query task is being dispatched. • **VersionNotSupport**: The current version of the SAG device does not support query tasks. • **BuildRequestError**: The SAG control system does not support query tasks. • **HardwareError**: The query task failed to be dispatched due to device errors. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The query task is not dispatched because the SAG device is disconnected from Alibaba Cloud. The task will not be dispatched after the device is connected to Alibaba Cloud.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagWifi
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagWifiResponse>
  <IsEnable>False</IsEnable>
  <RequestId>C1ECD42E-B896-487B-8FCD-4A3364D00F21</RequestId>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586843621000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagWifiResponse>
```

`JSON` format

```
{
 "IsEnable": "False",
 "RequestId": "C1ECD42E-B896-487B-8FCD-4A3364D00F21",
    "TaskStates": [
 {
  "State": "Succeed",
  "CreateTime": 1586843621000,
  "ErrorCode": "200",
  "ErrorMessage": "Successful"
 }
]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the version of the specified SAG instance does not support ACLs.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is disconnected form Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network settings are not synchronized between the SAG device and instance.

HttpCode	Error code	Error message	Description
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

5.22. DescribeSAGDeviceInfo

Queries a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSAGDeviceInfo	The operation that you want to perform. Set the value to **DescribeSAGDeviceInfo**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
SmartAGId	String	Yes	sag-7f3d9b6jwnuqn6****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
ServiceIP	String	42.XX.XX.151	The IP address of the SAG device.
ControllerState	String	Normal	The control status of the SAG device. Valid values: • **Normal**: normal • **Abnormal**: abnormal
RequestId	String	B6A991F4-F533-1627-8144-B64E01C5EE85	The ID of the request.

Parameter	Type	Example	Description
SynStatus	String	Unsynchronized	Indicates whether the settings of the SAG device are synchronized to Alibaba Cloud. Valid values: • **Synchronized**: synchronized • **Unsynchronized**: unsynchronized • **Synchronizing**: being synchronized
SmartAGType	String	sag-100wm	The model of the SAG device. Valid values: • **sag-100wm** • **sag-1000**
Version	String	2.3.1.1	The version of the SAG device.
VpnState	String	Abnormal	The VPN connection status of the SAG device. Valid values: • **Normal**: normal • **Abnormal**: abnormal
StartupTime	String	2021-06-15 17:33:43	The time when the SAG device was started.
LastConnectedControllerTime	String	2021-07-14 00:27:48	The last time when the SAG device was connected to Alibaba Cloud.
ResettableStatus	String	Enabled	Indicates whether the reset button of the SAG device is enabled. Valid values: • **Enabled**: enabled • **Disabled**: disabled

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeSAGDeviceInfo
&RegionId=cn-shanghai
&SmartAGId=sag-7f3d9b6jwnuqn6****
&SmartAGSn=sag32a30****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeSAGDeviceInfoResponse>
    <ControllerState>Normal</ControllerState>
    <RequestId>B6A991F4-F533-1627-8144-B64E01C5EE85</RequestId>
    <SynStatus>Unsynchronized</SynStatus>
    <SmartAGType>sag-100wm</SmartAGType>
    <Version>2.3.1.1</Version>
    <VpnState>Abnormal</VpnState>
    <StartupTime>2021-06-15 17:33:43</StartupTime>
    <ResettableStatus>Enabled</ResettableStatus>
</DescribeSAGDeviceInfoResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "ControllerState" : "Normal",
  "RequestId" : "B6A991F4-F533-1627-8144-B64E01C5EE85",
  "SynStatus" : "Unsynchronized",
  "SmartAGType" : "sag-100wm",
  "Version" : "2.3.1.1",
  "VpnState" : "Abnormal",
  "StartupTime" : "2021-06-15 17:33:43",
  "ResettableStatus" : "Enabled"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the SAG APP instance does not support access control lists (ACLs).
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network configurations are not synchronized between the SAG device and Alibaba Cloud.
400	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance is not activated. Activate the SAG instance first.
400	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance.
400	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.

For a list of error codes, visit the API Error Center.

5.23. DescribeSagDropTopN

You can call this operation to query the top 10 Smart Access Gateway (SAG) instances that have the highest packet loss rates in a specific region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagDropTopN	The operation that you want to perform. Set the value to **DescribeSagDropTopN**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
Size	Integer	No	10	The number of SAG instances to be queried. Default value:**10**. This value cannot be modified.

Response parameters

Parameter	Type	Example	Description
DropTopN	Array		The information about packets dropped by the SAG instance.
DropRate	String	0.0	The packet loss rate of the SAG instance. Unit: packets per second (PPS).
InstanceId	String	sag-whfn****	The ID of the SAG instance.
Name	String	test	The name of the SAG instance.
RegionId	String	cn-shanghai	The ID of the region where the SAG instance is deployed.
RequestId	String	AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545	The ID of the request.

Examples

Sample requests

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

Sample success responses

`XML` format

```
<DescribeSagDropTopNResponse>
  <RequestId>58853663-5DFE-47A1-A69F-F0290BBFBC0A</RequestId>
  <DropTopN>
        <InstanceId>sag-p6ctq4o5bey3e9****</InstanceId>
        <RegionId>cn-shanghai</RegionId>
        <DropRate>0.0</DropRate>
        <Name>ccntest</Name>
  </DropTopN>
  <DropTopN>
        <InstanceId>sag-on7qvl3pv52l33****</InstanceId>
        <RegionId>cn-shanghai</RegionId>
        <DropRate>0.0</DropRate>
        <Name>Tutest</Name>
  </DropTopN>
  <DropTopN>
        <InstanceId>sag-7zyvg7fpk16p15****</InstanceId>
        <RegionId>cn-shanghai</RegionId>
        <DropRate>0.0</DropRate>
        <Name>chtest</Name>
  </DropTopN>
</DescribeSagDropTopNResponse>
```

`JSON` format

```
{
 "RequestId": "58853663-5DFE-47A1-A69F-F0290BBFBC0A",
 "DropTopN": [
  {
   "InstanceId": "sag-p6ctq4o5bey3e9****",
   "RegionId": "cn-shanghai",
   "DropRate": "0.0",
   "Name": "ccntest"
  },
  {
   "InstanceId": "sag-on7qvl3pv52l33****",
   "RegionId": "cn-shanghai",
   "DropRate": "0.0",
   "Name": "Tutest"
  },
  {
   "InstanceId": "sag-7zyvg7fpk16p15****",
   "RegionId": "cn-shanghai",
   "DropRate": "0.0",
   "Name": "chtest"
  }
 ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.24. DescribeSagTrafficTopN

You can call this operation to query the top 10 Smart Access Gateway (SAG) instances that have the highest data transfer rates in a specific region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagTrafficTopN	The operation that you want to perform. Set the value to **DescribeSagTrafficTopN**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
Size	Integer	No	10	The number of SAG instances to be queried. Default value:**10**. This value cannot be modified.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545	The ID of the request.
TrafficTopN	Array		The information about the data transfer rate of the SAG instance.
InstanceId	String	sag-whfn****	The ID of the SAG instance.
Name	String	test	The name of the SAG instance.
RegionId	String	cn-shanghai	The ID of the region where the SAG instance is deployed.
TrafficRate	String	3866.6666666666665	The data transfer rate of the SAG instance. Unit: bit/s

Examples

Sample requests

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

Sample success responses

`XML` format

```
<DescribeSagTrafficTopNResponse>
  <RequestId>0390E09B-8824-4B79-A27E-35BE65DA8E48</RequestId>
  <TrafficTopN>
        <InstanceId>sag-moa1tjqpa7zbik****</InstanceId>
        <TrafficRate>3900.0</TrafficRate>
        <RegionId>cn-shanghai</RegionId>
        <Name>jitest</Name>
  </TrafficTopN>
  <TrafficTopN>
        <InstanceId>sag-7zyvg7fpk16p15****</InstanceId>
        <TrafficRate>1243.2</TrafficRate>
        <RegionId>cn-shanghai</RegionId>
        <Name>chutest</Name>
  </TrafficTopN>
</DescribeSagTrafficTopNResponse>
```

`JSON` format

```
{
 "RequestId": "0390E09B-8824-4B79-A27E-35BE65DA8E48",
 "TrafficTopN": [
  {
   "InstanceId": "sag-moa1tjqpa7zbik****",
   "TrafficRate": "3900.0",
   "RegionId": "cn-shanghai",
   "Name": "jitest"
  },
  {
   "InstanceId": "sag-7zyvg7fpk16p15****",
   "TrafficRate": "1243.2",
   "RegionId": "cn-shanghai",
   "Name": "chutest"
  }
 ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.25. RevokeInstanceFromVbr

Revokes permissions from a virtual border router (VBR) under another account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	RevokeInstanceFromVbr	The operation that you want to perform. Set the value to **RevokeInstanceFromVbr**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.

Parameter	Type	Required	Example	Description
SmartAGId	String	Yes	sag-0nntegllltw6z4b****	The ID of the SAG instance.
VbrInstanceId	String	Yes	vbr-bp13gtbhdp0pfqg6s****	The ID of the VBR.

Response parameters

Parameter	Type	Example	Description
RequestId	String	D085AE49-51DC-4E8A-9F06-2D99C4E374F7	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=RevokeInstanceFromVbr
&RegionId=cn-shanghai
&SmartAGId=sag-0nntegllltw6z4b****
&VbrInstanceId=vbr-bp13gtbhdp0pfqg6s****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<RevokeInstanceFromVbrResponse>
  <RequestId>D085AE49-51DC-4E8A-9F06-2D99C4E374F7</RequestId>
</RevokeInstanceFromVbrResponse>
```

`JSON` format

```
{
 "RequestId": "D085AE49-51DC-4E8A-9F06-2D99C4E374F7"
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.26. ModifyDeviceAutoUpgradePolicy

Modifies the automatic upgrade policy of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyDeviceAutoUpgradePolicy	The operation that you want to perform. Set the value to **ModifyDeviceAutoUpgradePolicy**.

Parameter	Type	Required	Example	Description
CronExpression	String	Yes	0 0 4 1/1 * ?	The time when upgrades start. Valid values: Set the parameter in a cron expression. For example, `0 0 4 1/1 * ?` indicates that upgrades start at 04:00:00 (UTC+8) on the first day of each month.
Duration	Integer	Yes	30	The time period during which upgrades are performed. Valid values: **30 to 120**. Unit: minutes.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SerialNumber	String	Yes	sage62x022502****	The serial number of the SAG device.
SmartAGId	String	Yes	sag-1um5x5nwhilymw****	The ID of the SAG instance.
TimeZone	String	Yes	Asia/Shanghai	The time zone.
UpgradeType	String	Yes	scheduled	The upgrade type. Valid values: • **scheduled**: scheduled upgrade. • **boot**: automatic upgrade upon device startup. • **manual**: manual upgrade.
VersionType	String	No	Device	The type of the software for which you want to modify the upgrade policy. Valid values: • **Device**: The operating system run by the SAG device. • **Dpi**: The signature database used by the SAG device.

Response parameters

Parameter	Type	Example	Description
RequestId	String	F03C6897-2284-4BC8-94B4-1467BD992A2D	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyDeviceAutoUpgradePolicy
&CronExpression=0 0 4 1/1 * ?
&Duration=30
&RegionId=cn-shanghai
&SerialNumber=sage62x022502****
&SmartAGId=sag-1um5x5nwhilymw****
&TimeZone=Asia/Shanghai
&UpgradeType=scheduled
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyDeviceAutoUpgradePolicyResponse>
  <RequestId>F03C6897-2284-4BC8-94B4-1467BD992A2D</RequestId>
</ModifyDeviceAutoUpgradePolicyResponse>
```

`JSON` format

```
{
 "RequestId": "F03C6897-2284-4BC8-94B4-1467BD992A2D"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the SAG instance ID is not specified.
400	SAG.InvalidSerialNumber	The specified SerialNumber is invalid.	The error message returned because the specified device serial number is invalid.

For a list of error codes, visit the API Error Center.

5.27. GrantSagInstanceToVbr

Acquires permissions from a virtual border router (VBR) under another account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	GrantSagInstanceToVbr	The operation that you want to perform. Set the value to **GrantSagInstanceToVbr**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-0nntegltw6z4b****	The ID of the SAG instance.
VbrInstanceId	String	Yes	vbr-bp13gtbhdp0pfqg6s*****	The ID of the VBR.
VbrRegionId	String	Yes	cn-hangzhou	The ID of the region where the VBR is deployed.
VbrUid	Long	Yes	1231212121121212112	The user ID (UID) of the account to which the VBR belongs.

Response parameters

Parameter	Type	Example	Description
InstanceId	String	sgv-3x8djyem7vqh70****	The ID of the authorization.
RequestId	String	49CEBB2B-9E5C-4789-8A29-3255A56A67B1	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=GrantSagInstanceToVbr
&RegionId=cn-shanghai
&SmartAGId=sag-0nntegllltw6z4b****
&VbrInstanceId=vbr-bp13gtbhdp0pfqg6s****
&VbrRegionId=cn-hangzhou
&VbrUid=1231212121121212112
&<Common request parameters>
```

Sample success responses

`XML` format

```
<GrantSagInstanceToVbrResponse>
  <RequestId>49CEBB2B-9E5C-4789-8A29-3255A56A67B1</RequestId>
  <InstanceId>sgv-3x8djyem7vqh70****</InstanceId>
</GrantSagInstanceToVbrResponse>
```

`JSON` format

```
{
 "RequestId": "49CEBB2B-9E5C-4789-8A29-3255A56A67B1",
 "InstanceId": "sgv-3x8djyem7vqh70****"
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.28. DiagnoseSmartAccessGateway

Enables diagnostics for Smart Access Gateway (SAG) devices.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DiagnoseSmartAccessGateway	The operation that you want to perform. Set the value to **DiagnoseSmartAccessGateway**.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-1um5x5nwhilymw****	The ID of the SAG instance.
SmartAGSn	String	Yes	sage62x022502****	The serial number (SN) of the SAG device.

Response parameters

Parameter	Type	Example	Description
RequestId	String	193AE392-76C2-4D3E-9420-889A51B43CC0	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=DiagnoseSmartAccessGateway
&RegionId=cn-shanghai
&SmartAGId=sag-1um5x5nwhilymw****
&SmartAGSn=sage62x022502****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DiagnoseSmartAccessGatewayResponse>
  <RequestId>193AE392-76C2-4D3E-9420-889A51B43CC0</RequestId>
</DiagnoseSmartAccessGatewayResponse>
```

`JSON` format

```
{
 "RequestId": "193AE392-76C2-4D3E-9420-889A51B43CC0"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all required parameters.

For a list of error codes, visit the API Error Center.

5.29. DescribeSagRemoteAccess

Queries remote logon information about a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagRemoteAccess	The operation that you want to perform. Set the value to **DescribeSagRemoteAccess**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SerialNumber	String	Yes	sage62x022502****	The serial number of the SAG device.
SmartAGId	String	Yes	sag-1um5x5nwhilymw****	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The error code. The 200 error code indicates that the query task is successful.
Message	String	successful	The error message. The Successful error message indicates that the query task is successful.
RemoteAccesses	Array of RemoteAccess		Remote logon information about the SAG device.
RemoteAccess			
RemoteAccessIp	String	192.XX.XX.1	The private IP address where the remote logon is initiated.
SerialNumber	String	sage62x022502****	The serial number of the SAG device.
RequestId	String	E38E950D-28A4-4C41-9428-A8908EC6AE5C	The ID of the request.
SmartAGId	String	sag-1um5x5nwhilymw****	The ID of the SAG instance.
Success	Boolean	true	Indicates whether the query task is successful. Valid values: • **true**: The query task is successful. • **false**: The query task failed.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=DescribeSagRemoteAccess
&RegionId=cn-shanghai
&SerialNumber=sage62x022502****
&SmartAGId=sag-1um5x5nwhilymw****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagRemoteAccessResponse>
  <SmartAGId>sag-kxe2cv7hot7qrv****</SmartAGId>
  <RemoteAccesses>
        <RemoteAccess>
              <RemoteAccessIp></RemoteAccessIp>
              <SerialNumber>sage62x022502****</SerialNumber>
        </RemoteAccess>
  </RemoteAccesses>
  <Message>successful</Message>
  <RequestId>2E2A56D0-D2BD-4D0B-9314-D355A5C67EBA</RequestId>
  <Success>true</Success>
  <Code>200</Code>
</DescribeSagRemoteAccessResponse>
```

`JSON` format

```
{
 "SmartAGId": "sag-kxe2cv7hot7qrv****",
 "RemoteAccesses": {
  "RemoteAccess": [
   {
    "RemoteAccessIp": "",
    "SerialNumber": "sage62x022502****"
   }
  ]
 },
 "Message": "successful",
 "RequestId": "2E2A56D0-D2BD-4D0B-9314-D355A5C67EBA",
 "Success": true,
 "Code": "200"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	InvalidId.SN	The specified smart access gateway serial number does not exist.	The error message returned because the specified serial number does not exist.
500	InternalError	An error occurred while processing your request.	The error message returned because an unknown error occurred.

For a list of error codes, visit the API Error Center.

5.30. DescribeGrantSagVbrRules

Queries authorization information about Smart Access Gateway (SAG) instances and cross-account virtual border routers (VBRs).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeGrantSagVbrRules	The operation that you want to perform. Set the value to **DescribeGrantSagVbrRules**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-0nntegltw6z4b****	The ID of the SAG instance.
VbrInstanceId	String	Yes	vbr-bp13gtbhdp0pfqg6s****	The ID of the VBR.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value:**10**.

Response parameters

Parameter	Type	Example	Description
GrantRules	Array of GrantRule		The information about the authorization rule.
GrantRule			
Bound	Boolean	false	Indicates whether the SAG instance is associated with the VBR. Valid values: • **false**: not associated. • **true**: associated.
CreateTime	Long	1600743723000	The time when the rule was created.
InstanceId	String	sgv-3x8djyem7vqh70****	The ID of the authorization rule.
SmartAGId	String	sag-0nntegltw6z4b****	The ID of the SAG instance.
SmartAGUid	Long	1231571212121212	The user ID (UID) of the account to which the SAG instance belongs.

Parameter	Type	Example	Description
VbrInstanceId	String	vbr-bp13gtbhdp0pfqg6s****	The ID of the VBR.
VbrRegionId	String	cn-hangzhou	The ID of the region where the VBR is deployed.
VbrUid	Long	1231571212121212	The user ID (UID) of the VBR.
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	46E98E69-FBA2-423E-9E5A-A3C6D843FED1	The ID of the request.
TotalCount	Integer	1	The total number of authorization rules.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=DescribeGrantSagVbrRules
&RegionId=cn-shanghai
&SmartAGId=sag-0nntegllltw6z4b****
&VbrInstanceId=vbr-bp13gtbhdp0pfqg6s****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeGrantSagVbrRulesResponse>
  <TotalCount>1</TotalCount>
  <RequestId>46E98E69-FBA2-423E-9E5A-A3C6D843FED1</RequestId>
  <PageSize>10</PageSize>
  <PageNumber>1</PageNumber>
  <GrantRules>
        <GrantRule>
              <VbrUid>123157908552****</VbrUid>
              <SmartAGUid>168840159596****</SmartAGUid>
              <VbrInstanceId>vbr-bp13gtbhdp0pfqg6s****</VbrInstanceId>
              <InstanceId>sgv-3x8djyem7vqh70****</InstanceId>
              <CreateTime>1600743723000</CreateTime>
              <Bound>false</Bound>
              <VbrRegionId>cn-hangzhou</VbrRegionId>
              <SmartAGId>sag-0nntegllltw6z4b****</SmartAGId>
        </GrantRule>
  </GrantRules>
</DescribeGrantSagVbrRulesResponse>
```

`JSON` format

```
{
    "TotalCount": 1,
    "RequestId": "46E98E69-FBA2-423E-9E5A-A3C6D843FED1",
    "PageSize": 10,
    "PageNumber": 1,
    "GrantRules": {
        "GrantRule": [
            {
                "VbrUid": "123157908552****",
                "SmartAGUid": "168840159596****",
                "VbrInstanceId": "vbr-bp13gtbhdp0pfqg6s****",
                "InstanceId": "sgv-3x8djyem7vqh70****",
                "CreateTime": 1600743723000,
                "Bound": false,
                "VbrRegionId": "cn-hangzhou",
                "SmartAGId": "sag-0nntegltw6z4b****"
            }
        ]
    }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the SAG instance ID is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

5.31. DescribeDeviceAutoUpgradePolicy

Queries the automatic upgrade policy of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeDeviceAutoUpgradePolicy	The operation that you want to perform. Set the value to **DescribeDeviceAutoUpgradePolicy**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SerialNumber	String	Yes	sage62x022502****	The serial number of the SAG device.
SmartAGId	String	Yes	sag-kxe2cv7hot7qrv****	The ID of the SAG instance.

Parameter	Type	Required	Example	Description
VersionType	String	No	Device	The type of the software for which you want to query the automatic upgrade policy. • **Device**: The operating system of the SAG device. • **Dpi**: The signature database used by the SAG device.

Response parameters

Parameter	Type	Example	Description
CronExpression	String	0 0 4 1/1 * ?	The time when upgrades start. Valid values: Set the parameter in a cron expression. For example, `0 0 4 1/1 * ?` indicates that upgrades start at 4:00:00 (UTC+8) on the first day of each month.
Duration	String	60	The time period during which upgrades are performed. Valid values: **30 to 120**. Unit: minutes.
Jitter	String	5	The time differences between upgrades. Unit: minutes.
RequestId	String	0E20FBB8-BCFC-4F5E-BD94-77FF6A2133D0	The ID of the request.
SerialNumber	String	sage62x022502****	The serial number of the SAG device.
SmartAGId	String	sag-kxe2cv7hot7qrv****	The ID of the SAG instance.
TimeZone	String	Asia/Shanghai	The time zone.
UpgradeType	String	scheduled	The upgrade type. Valid values: • **scheduled**: scheduled upgrade. • **boot**: automatic upgrade upon device startup. • **manual**: manual upgrade.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeDeviceAutoUpgradePolicy
&RegionId=cn-shanghai
&SerialNumber=sage62x022502****
&SmartAGId=sag-1um5x5nwhilymw****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeDeviceAutoUpgradePolicyResponse>
  <SerialNumber>sage62x022502****</SerialNumber>
  <SmartAGId>sag-kxe2cv7hot7qrv****</SmartAGId>
  <UpgradeType>scheduled</UpgradeType>
  <Duration>60</Duration>
  <RequestId>0E20FBB8-BCFC-4F5E-BD94-77FF6A2133D0</RequestId>
  <CronExpression>0 0 4 1/1 * ? </CronExpression>
  <TimeZone>Asia/Shanghai</TimeZone>
</DescribeDeviceAutoUpgradePolicyResponse>
```

`JSON` format

```
{
 "SerialNumber": "sage62x022502****",
 "SmartAGId": "sag-kxe2cv7hot7qrv****",
 "UpgradeType": "scheduled",
 "Duration": 60,
 "RequestId": "0E20FBB8-BCFC-4F5E-BD94-77FF6A2133D0",
 "CronExpression": "0 0 4 1/1 * ?",
 "TimeZone": "Asia/Shanghai"
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.32. CreateSmartAccessGateway

Creates a Smart Access Gateway (SAG) CPE or vCPE instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateSmartAccessGateway	The operation that you want to perform. Set the value to **CreateSmartAccessGateway**.
RegionId	String	Yes	cn-shanghai	The ID of the region where you want to deploy the SAG instance. You can call the DescribeRegions operation to query the most recent region list.
MaxBandWidth	Integer	Yes	12	The bandwidth of the SAG instance. • If you want to create an SAG CPE instance and the model is **sag-100wm**, valid values of this parameter are **2** to **50**. Unit: Mbit/s. • If you want to create an SAG CPE instance and the model is **sag-1000**, valid values of this parameter are **10** to **500**. Unit: Mbit/s. • If you want to create an SAG vCPE instance, valid values of this parameter are **10** to **1000**. Unit: Mbit/s.

Parameter	Type	Required	Example	Description
Name	String	No	testname	The name of the SAG instance. The name must be 2 to 128 characters in length and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
Description	String	No	testdesc	The description of the SAG instance. The description must be 2 to 256 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
Period	Integer	Yes	12	The subscription period of the SAG instance. Unit: months. Valid values: **1** to **9**, **12**, **24**, and **36**.
AutoPay	Boolean	Yes	false	Specifies whether to enable auto-payment for the instance. Valid values: • **true**: yes • **false**: no If you set the parameter to false, go to Billing Management to complete the payment after you call this operation. After you complete the payment, the instance can be created.
HardWareSpec	String	Yes	sag-100wm	The type of the SAG instance. Valid values: • **sag-100wm** • **sag-1000** • **sag-vcpe**
ReceiverCountry	String	Yes	China	The country of the recipient address.
ReceiverState	String	Yes	Zhejiang	The province of the recipient address.
ReceiverCity	String	Yes	Hangzhou	The city of the recipient address.
ReceiverDistrict	String	Yes	West Lake	The district of the recipient address.
ReceiverTown	String	Yes	Zhuan Tang	The town of the recipient address.
ReceiverZip	String	Yes	310000	The postcode of the recipient address.
ReceiverPhone	String	No	8585****	The landline phone number of the recipient.
ReceiverMobile	String	Yes	1884085****	The mobile phone number of the recipient.
ReceiverName	String	Yes	Alice	The name of the recipient.

Parameter	Type	Required	Example	Description
ReceiverEmail	String	Yes	xx@example.com	The email address of the recipient.
BuyerMessage	String	Yes	Remarks	The remarks left by the buyer.
ReceiverAddress	String	Yes	No.XX	The detailed address of the recipient.
HaType	String	Yes	no_backup	The deployment mode. Valid values: • **no_backup**: You buy only one SAG device to connect private networks to Alibaba Cloud. • **cold_backup**: You buy two SAG devices in active-standby mode. One SAG device serves as an active device and the other serves as a standby device. Only the active device is connected to Alibaba Cloud. If the active device is not working as expected, you must manually perform a switchover. • **warm_backup**: You buy two SAG devices in active-active mode. Both SAG devices are connected to Alibaba Cloud. If an active device is not working as expected, a failover is automatically performed. **Note** If you want to create an SAG vCPE instance, set the value to **warm_backup**.
ChargeType	String	Yes	PREPAY	The billing method of the SAG instance. Set the value to **PREPAY**, which specifies the subscription billing method.
AlreadyHaveSag	Boolean	No	false	Specifies whether you already have an SAG device. Valid values: • **true**: yes • **false** (default): no
CPEVersion	String	No	basic	The edition of SAG when you create an SAG vCPE instance. Set the value to **basic**, which specifies Basic Edition.

Response parameters

Parameter	Type	Example	Description
Description	String	testdesc	The description of the SAG instance.
RequestId	String	A6B9EB0F-57DB-4843-A372-04678ABF490E	The ID of the request.

Parameter	Type	Example	Description
OrderId	String	20337777****	The ID of the order.
SmartAGId	String	sag-nylv14tghsk26c*****	The ID of the SAG instance.
Name	String	testname	The name of the SAG instance.
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the SAG instance belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateSmartAccessGateway
&RegionId=cn-shanghai
&MaxBandWidth=12
&Name=testname
&Description=testdesc
&Period=12
&AutoPay=false
&HardWareSpec=sag-100wm
&ReceiverCountry=China
&ReceiverState=Zhejiang
&ReceiverCity=Hangzhou
&ReceiverDistrict=West Lake
&ReceiverTown=Zhuan Tang
&ReceiverZip=310000
&ReceiverPhone=8585****
&ReceiverMobile=1884085****
&ReceiverName=Alice
&ReceiverEmail=xx@example.com
&BuyerMessage=Remarks
&ReceiverAddress=No.XX
&HaType=no_backup
&ChargeType=PREPAY
&AlreadyHaveSag=false
&CPEVersion=basic
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateSmartAccessGatewayResponse>
    <SmartAGId>sag-nylv14tghsk26c****</SmartAGId>
    <OrderId>20337777121212</OrderId>
    <RequestId>A6B9EB0F-57DB-4843-A372-04678ABF490E</RequestId>
</CreateSmartAccessGatewayResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "SmartAGId" : "sag-nylv14tghsk26c****",
  "OrderId" : 20337777121212,
  "RequestId" : "A6B9EB0F-57DB-4843-A372-04678ABF490E"
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.33. DescribeSmartAccessGateways

Queries information about a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-shanghai	The ID of the region where the SAG instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
AssociatedCcnId	String	No	ccn-bxuau4ezctt****	The ID of the Cloud Connect Network (CCN) instance with which the SAG instance is associated.
SmartAGId	String	No	sag-c3m3n1khz58l****	The ID of the SAG instance.
Status	String	No	Active	The status of the SAG instance. Valid values: • **Ordered**: to be shipped • **Delivered**: shipped • **Received**: activated • **Unconfirmed**: pending confirmation • **Active**: available • **Offline**: offline • **Arrearage**: locked due to overdue payments
Name	String	No	nametest	The name of the SAG instance. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: **1** to **50**. Default value: **10**.

Parameter	Type	Required	Example	Description
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
Action	String	Yes	DescribeSmartAccessGateways	The operation that you want to perform. Set the value to **DescribeSmartAccessGateways**.
SerialNumber	String	No	sag32a3****	The serial number of the SAG device.
AclIds	String	No	acl-xhwhyuo43l****	The ID of the access control list (ACL) with which the SAG instance is associated.
UnboundAclIds	String	No	acl-sjfbgngj****	The ID of ACL. This parameter specifies that the SAG instance that is not associated with the ACL is queried. Separate ACL IDs with commas (,).
InstanceType	String	No	hardware	The type of the SAG instance. Valid values: • **software**: an SAG app instance • **hardware**: an SAG CPE instance
CanAssociateQos	Boolean	No	false	Specifies whether the SAG instance can be associated with a quality of service (QoS) policy. Valid values: • **true**: yes • **false**: no This parameter specifies whether you want to query SAG instances that cannot be associated with QoS policies.
HardwareType	String	No	sag-1000	The model of SAG device. Valid values: • **sag-1000** • **sag-100wm**
SoftwareVersion	String	No	2.3.0.0	The software version of the SAG device.
VersionComparator	String	No	equals	The version filter. Valid values: • **greater**: later than the current version • **less**: earlier than the current version • **equals**: equal to the current version
BusinessState	String	No	Normal	The business status of the SAG instance. Valid values: • **Normal**: normal • **Arrearage**: locked due to overdue payments
ResourceGroupId	String	No	rg-acfm2iu4fnc****	The ID of the resource group to which the SAG instance belongs.

Parameter	Type	Required	Example	Description
SmartAGIds.N	String	No	sag-v0a6qd069p7zk****	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	1	The total number of entries returned.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	ADE68CEE-8E4F-4D0B-9EE9-2C2FFAABF41F	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.
SmartAccessGateways	Array of SmartAccessGateway		The information about the SAG instance.
SmartAccessGateway			
SerialNumber	String	sage6gsdllbid****,sage6nniq3dqa****	The serial number of the SAG device.
Status	String	Active	The status of the SAG instance.
UpBandwidth4G	Integer	3	The maximum upstream bandwidth of 4G network connections established by the SAG device. Unit: Mbit/s.
BackupStatus	String	Active	The status of the standby SAG device.
IdaasApplicationId	String	idaas-cn-hangzhou-l7j0wf0crzea****	The ID of the Identity as a Service (IDaaS) application associated with the SAG instance.
SoftwareVersion	String	2.3.0.0	The software version of the active SAG device.
CreateTime	Long	1622617250000	The timestamp when the SAG instance was created.
SmartAGId	String	sag-6z21oj0vjjrx6s****	The ID of the SAG instance.
UpBandwidthWan	Integer	2	The maximum upstream bandwidth of network connections established on the WAN port of the SAG device. Unit: Mbit/s.
City	String	cn-shanghai	The ID of the city where the SAG device is deployed.

Parameter	Type	Example	Description
AclIds	String	acl-shfhfhhfbnvkdg******	The ID of the ACL with which the SAG instance is associated.
QosIds	String	qos-djh****	The ID of the QoS policy associated with the SAG instance.
CidrBlock	String	172.16.1.0/24	The private CIDR block of the destination network with which the on-premises network or client needs to communicate.
Description	String	docdesc	The description of the SAG instance.
IpsecStatus	String	down	The status of the IPsec-VPN connection. Valid values: • **up**: normal • **down**: abnormal
EnterpriseCode	String	12P****	The ID of the enterprise code bound to the SAG instance.
DpiStatus	String	Off	The status of the deep packet inspection (DPI) feature. Valid values: • **On**: enabled • **Off**: disabled
AssociatedCcnId	String	ccn-iz26o9zye6lhoo****	The ID of the CCN instance with which the SAG instance is associated.
Name	String	testname	The name of the SAG instance.
HardwareVersion	String	sag-100wm	The type of the SAG instance. Valid values: • **sag-1000**: indicates an SAG CPE instance and the instance is associated with an SAG-1000 device. • **sag-100wm**: indicates an SAG CPE instance and the instance is associated with an SAG-100WM device. • **sag-software**: indicates an SAG app instance. • **sag-vcpe**: indicates an SAG vCPE instance.
IdaasId	String	idaas-cn-hangzhou-1ahixtl****	The ID of the IDaaS instance with which the SAG instance is associated.
DataPlan	Long	5	The data transfer plan of the SAG instance. Unit: GB. **Note** Each client account has a data transfer plan free of charge for 5 GB each month.
AssociatedCcnName	String	ccn	The name of the CCN instance associated with the SAG instance.

Parameter	Type	Example	Description
ResellerUid	String	253460731706911258	The Alibaba Cloud account ID of the third-party reseller.
DpiMonitorStatus	String	Active	The status of the DPI-based monitoring feature. Valid values: • **Active**: enabled • **Inactive**: disabled
MaxBandwidth	String	50 M	The maximum bandwidth value of the SAG instance. Unit: Mbit/s.
SmartAGUid	Long	12345556345555	The ID of the Alibaba Cloud account to which the SAG instance belongs.
BackupSoftwareVersion	String	2.3.0.0	The software version of the standby SAG device.
EndTime	Long	1628265600000	The timestamp when the SAG instance expires.
ResellerInstanceId	String	sag-v0fkpk4akfz5******	The ID of the instance provided by the third-party reseller.
VpnStatus	String	down	The status of the VPN connection. Valid values: • **up**: normal • **down**: abnormal
RoutingStrategy	String	static	The method that the SAG instance uses to advertise routes to Alibaba Cloud. • **static**: static routing • **dynamic**: dynamic routing
SecurityLockThreshold	Integer	3600	The time threshold. If the SAG device remains offline for the specified period of time, the SAG device is locked. Unit: seconds.
Links	Array of Link		The list of connections between the on-premises network and Alibaba Cloud.
Link			
Type	String	ccn	The type of the network connection. Valid values: • **ccn**: indicates that the on-premises network is connected to Alibaba Cloud through CCN. • **vbr**: indicates that the on-premises network is connected to Alibaba Cloud through virtual border routers (VBRs) and Express Connect circuits.

Parameter	Type	Example	Description
Status	String	Active	The status of the network connection. The status of the bandwidth connection: • **Ordered**: to be shipped • **Delivered**: shipped • **Offline**: offline • **Active**: available • **Arrearage**: locked due to overdue payments The status of the Express Connect circuit: • **normal**: normal • **arrears**: payments overdue
EndTime	Long	1628265600000	The timestamp when the connection expires.
Bandwidth	String	50 M	The bandwidth value of the connection. Unit: Mbit/s.
RelateInstanceRegionId	String	cn-shanghai	The region ID of the instance with which the connection is associated.
RelateInstanceId	String	ccn-iz26o9zye6lhoo****	The ID of the instance associated with the connection.
InstanceId	String	sag-6z21oj0vjjrx6s****	The ID of the product instance.
CommodityType	String	smartag	The product type of bandwidth. Valid values: • **bandwidth**: indicates that the SAG instance and bandwidth resources can be separately purchased. • **smartag**: indicates that the SAG instance and bandwidth resources must be purchased together.
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the SAG instance belongs.
UserCount	Integer	3	The number of client accounts for the SAG instance.
AccessPointId	String	238	The ID of the access point for the SAG instance.
ApplicationBandwidthPackageId	String	abwp-7963l7iqnquyj3****	The ID of the bandwidth plan for application acceleration that is associated with the SAG instance.
AccelerateBandwidth	Long	1	The maximum bandwidth value for application acceleration. Unit: Mbit/s.

Examples

Sample requests

```
http(s)://[Endpoint]/?RegionId=cn-shanghai
&AssociatedCcnId=ccn-bxuau4ezctt****
&SmartAGId=sag-c3m3n1khz581****
&Status=Active
&Name=nametest
&PageSize=10
&PageNumber=1
&Action=DescribeSmartAccessGateways
&SerialNumber=sag32a3****
&AclIds=acl-xhwhyuo431****
&UnboundAclIds=acl-sjfbgngj****
&InstanceType=hardware
&CanAssociateQos=false
&HardwareType=sag-1000
&SoftwareVersion=2.3.0.0
&BusinessState=Normal
&ResourceGroupId=rg-acfm2iu4fnc****
&SmartAGIds=["sag-v0a6qd069p7zk****"]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeSmartAccessGatewaysResponse>
    <TotalCount>1</TotalCount>
    <PageSize>10</PageSize>
    <RequestId>ADE68CEE-8E4F-4D0B-9EE9-2C2FFAABF41F</RequestId>
    <PageNumber>1</PageNumber>
    <SmartAccessGateways>
        <SmartAccessGateway>
            <Status>Active</Status>
            <EndTime>1628265600000</EndTime>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <CreateTime>1622617250000</CreateTime>
            <AssociatedCcnName>zxtest-202106</AssociatedCcnName>
            <MaxBandwidth>50M</MaxBandwidth>
            <VpnStatus>down</VpnStatus>
            <CidrBlock>10.0.9.0/24</CidrBlock>
            <DpiMonitorStatus>Inactive</DpiMonitorStatus>
            <HardwareVersion>sag-vcpe</HardwareVersion>
            <Name>zxtest-202106</Name>
            <SoftwareVersion>2.3.0.0</SoftwareVersion>
            <SerialNumber>sage6gsdllbid****,sage6nniq3dqa****</SerialNumber>
            <IpsecStatus>up</IpsecStatus>
            <RoutingStrategy>static</RoutingStrategy>
            <AccessPointId>238</AccessPointId>
            <Links>
                <Link>
                    <Status>Active</Status>
                    <Type>ccn</Type>
                    <EndTime>1628265600000</EndTime>
                    <InstanceId>sag-6z21oj0vjjrx6s****</InstanceId>
                    <RelateInstanceId>ccn-iz26o9zye6lhoo****</RelateInstanceId>
                    <Bandwidth>50M</Bandwidth>
                    <CommodityType>smartag</CommodityType>
                </Link>
            </Links>
            <AssociatedCcnId>ccn-iz26o9zye6lhoo****</AssociatedCcnId>
            <BackupSoftwareVersion>2.3.0.0</BackupSoftwareVersion>
            <SmartAGId>sag-6z21oj0vjjrx6s****</SmartAGId>
            <DpiStatus>Off</DpiStatus>
            <SecurityLockThreshold>0</SecurityLockThreshold>
            <BackupStatus>Active</BackupStatus>
        </SmartAccessGateway>
    </SmartAccessGateways>
</DescribeSmartAccessGatewaysResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 1,
  "PageSize" : 10,
  "RequestId" : "ADE68CEE-8E4F-4D0B-9EE9-2C2FFAABF41F",
  "PageNumber" : 1,
  "SmartAccessGateways" : {
    "SmartAccessGateway" : [ {
      "Status" : "Active",
      "EndTime" : 1628265600000,
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "CreateTime" : 1622617250000,
      "AssociatedCcnName" : "zxtest-202106",
      "MaxBandwidth" : "50M",
      "VpnStatus" : "down",
      "CidrBlock" : "10.0.9.0/24",
      "DpiMonitorStatus" : "Inactive",
      "HardwareVersion" : "sag-vcpe",
      "Name" : "zxtest-202106",
      "SoftwareVersion" : "2.3.0.0",
      "SerialNumber" : "sage6gsdllbid****,sage6nniq3dqa****",
      "IpsecStatus" : "up",
      "RoutingStrategy" : "static",
      "AccessPointId" : 238,
      "Links" : {
        "Link" : [ {
          "Status" : "Active",
          "Type" : "ccn",
          "EndTime" : 1628265600000,
          "InstanceId" : "sag-6z21oj0vjjrx6s****",
          "RelateInstanceId" : "ccn-iz26o9zye6lhoo****",
          "Bandwidth" : "50M",
          "CommodityType" : "smartag"
        } ]
      },
      "AssociatedCcnId" : "ccn-iz26o9zye6lhoo****",
      "BackupSoftwareVersion" : "2.3.0.0",
      "SmartAGId" : "sag-6z21oj0vjjrx6s****",
      "DpiStatus" : "Off",
      "SecurityLockThreshold" : 0,
      "BackupStatus" : "Active"
    } ]
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Param.InvalidVersionComparator	The specified version comparison operator is invalid.	The error message returned because the specified operator used to filter SAG instance versions is invalid.
400	InvalidRegionID	The specified regionId does not exist.	The error message returned because the specified region ID does not exist.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.

For a list of error codes, visit the API Error Center.

5.34. UpdateSmartAccessGatewayVersion

Upgrades an SAG instance to a later version.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UpdateSmartAccessGatewayVersion	The operation that you want to perform. Set the value to **UpdateSmartAccessGatewayVersion**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-0ovhf732a9j*******	The ID of the SAG instance.
VersionCode	String	Yes	1.0.1	The version to which you want to upgrade the SAG instance.
SerialNumber	String	No	sag233****	The serial number of the SAG device.
VersionType	String	No	Device	The type of software that you want to upgrade. Valid values: • **Device**: The operating system run by the SAG device. • **Dpi**: The signature database used by the SAG device.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=UpdateSmartAccessGatewayVersion
&RegionId=cn-hangzhou
&SmartAGId=sag-0ovhf732a9j*******
&VersionCode=1.0.1
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateSmartAccessGatewayVersionResponse>
  <RequestId>CE6642D4-21EB-4168-9BF9-F217953F9892</RequestId>
</UpdateSmartAccessGatewayVersionResponse>
```

`JSON` format

```
{
   "RequestId":"CE6642D4-21EB-4168-9BF9-F217953F9892"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.
500	PermissionError	No permission to operate the instance.	The error message returned because you do not have the permission to manage the specified instance.
403	NotBoundCCN	The specified smart access gateway has not bound CCN; please bind CCN first.	The error message returned because the specified SAG instance is not associated with a Cloud Connect Network (CCN) instance. Associate the SAG instance with a CCN instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.
403	GetSmartAccessGatewayVersionError	An error occurred while obtaining the smart access gateway version.	The error message returned because the system failed to query the version of the specified SAG instance.
403	GetSmartAccessGatewayStateError	An error occurred while obtaining the smart access gateway status.	The error message returned because the system failed to query the status of the specified SAG instance.
403	VersionTooOld	The specified version is outdated; please select a newer version.	The error message returned because the specified version is outdated. Select a later version.

For a list of error codes, visit the API Error Center.

5.35. ModifySmartAccessGateway

Modifies the configuration of a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
SmartAGId	String	Yes	sag-0ovhf732a9j0******	The ID of the SAG instance.
Name	String	No	sag	The name of the SAG instance. The name must be 2 to 128 characters in length, and can contain letters, digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter but cannot start with `http://` or `https://`.
Description	String	No	SAG description	The description of the SAG instance. The description must be 2 to 256 characters in length. It must start with a letter and cannot start with `http://` or `https://`.
CidrBlock	String	No	172.16.0.1/24	The CIDR blocks of terminals in the private network. Make sure that the CIDR blocks do not overlap with each other. If the LAN ports of the terminals use dynamic IP addresses, the IP addresses within the first private CIDR block are assigned to the terminals that have Dynamic Host Configuration Protocol (DHCP) enabled.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
Action	String	Yes	ModifySmartAccessGateway	The operation that you want to perform. Set the value to **ModifySmartAccessGateway**.
SecurityLockThreshold	Integer	No	3	The period of time for which the SAG instance remains disconnected is locked. The value must be larger than 0. Unit: seconds.
RoutingStrategy	String	No	static	The policy to advertise routes from Alibaba Cloud to the private network. Valid values: • **static**: static routing • **dynamic**: dynamic routing

Response parameters

Parameter	Type	Example	Description
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?SmartAGId=sag-0ovhf732a9j0******
&Name=sag
&Description=SAG description
&CidrBlock=172.16.0.1/24
&RegionId=cn-hangzhou
&Action=ModifySmartAccessGateway
&SecurityLockThreshold=3
&RoutingStrategy=static
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ModifySmartAccessGatewayResponse>
    <RequestId>CE6642D4-21EB-4168-9BF9-F217953F9892</RequestId>
</ModifySmartAccessGatewayResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "CE6642D4-21EB-4168-9BF9-F217953F9892"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.IpCountTooLittle	The number of available IP addresses of the CIDR block is fewer than the number of SslConnectionSpec.	The error message returned because the number of available IP addresses in the specified CIDR block is fewer than the number of connections.
400	SAG.SslConnectionSpecInvalid	The number of SslConnectionSpec is invalid.	The error message returned because the specified number of connections is invalid.
400	SAG.CcnCidrNoConfig	You must configure the CIDR block of CCN.	The error message returned because the CIDR block of the associated Cloud Connect Network (CCN) instance is not specified.
400	SAG.CidrEmpty	You must specify the CIDR blocks of SAG.	The error message returned because the CIDR block of the SAG instance is not specified.
400	SAG.ConflictCidr.CcnSnatCidr	The SAG CIDR block is in conflict with the CCN CIDR block.	The error message returned because the CIDR block of the SAG instance overlaps with that of the CCN instance.
400	SAG.ConflictSnatIp	The specified SNAT IP address is invalid.	The error message returned because the IP address specified in the source network address translation (SNAT) entry conflicts with another one.

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not set.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.InvalidCidr	The specified CIDR block is invalid.	The error message returned because the specified CIDR block of the SAG instance is invalid.
400	SAG.InvalidCidr.NoBelongCcnCidr	The specified SAG CIDR block does not belong to the CCN CIDR block.	The error message returned because the CIDR block of the SAG instance does not fall within that of the CCN instance.
400	SAG.InvalidSnatCidr	The specified SNAT CIDR block is invalid.	The error message returned because the CIDR block specified in the SNAT entry is invalid.
400	SAG.InvalidSnatIp	The specified SNAT IP address is invalid.	The error message returned because the IP address specified in the SNAT entry is invalid.
400	CCN.CidrEmpty	You must specify the CCN CIDR block.	The error message returned because the CIDR block of the CCN instance is not specified.
400	CCN.SnatCidrConflict	The specified SNAT CIDR block is invalid.	The error message returned because the specified SNAT CIDR block conflicts with another one.
400	ActionNotSupport	The specified instance does not support this action.	The error message returned because the specified instance does not support this feature.
400	CCN.SnatCidrNoConfig	You must configure the SNAT CIDR block of the CCN.	The error message returned because the CIDR block of the SNAT entry associated with the CCN instance is not specified.
400	SAG.CidrUsedByRoutableAddress	A routable internal IP address belongs to the specified internal CIDR block. You cannot modify this CIDR block.	The error message returned because the private CIDR block that you want to modify is already used as routable IP addresses and cannot be modified.
400	InvalidName	The specified name is invalid.	The error message returned because the specified name is invalid.
400	SAG.CidrAmountLimit	The maximum number of static routes for the SAG instance is exceeded.	The error message returned because the number of static routes specified for the SAG instance has reached the upper limit.
400	SAG.InvalidCidrFormat	The specified CIDR format is invalid.	The error message returned because the format of the private CIDR block is invalid.
400	SAG.CidrOverlap	The specified CIDR overlaps with an existing CIDR.	The error message returned because the private CIDR blocks overlap with each other.

HttpCode	Error code	Error message	Description
400	SAG.Arrearage	The specified SAG instance has overdue payments. Renew the instance first.	The error message returned because the specified SAG instance has overdue payments. You must complete the overdue payments first.
400	SAG.NoActive	The specified SAG instance has not been activated.	The error message returned because the specified SAG instance is not activated. Activate the SAG instance first.
400	SAG.NotAllowConfigCidr	You cannot specify a static CIDR block when the dynamic routing strategy is used.	The error message returned because the dynamic routing mode does not support static CIDR blocks.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance is not activated. Activate the SAG instance first.
500	InternalError	An error occurred while processing your request.	The error message returned because an unknown error occurred.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.
403	InvalidCidr	Cidr is illegal, please check your input.	The error message returned because the specified CIDR block is invalid. Check the specified CIDR block.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
403	VbrConflict.ChangeSubnet	The subnet of the gateway conflicts with the VBR. Modify the subnet first.	The error message returned because the subnet CIDR block of the specified SAG instance overlaps with the CIDR block of the specified virtual border router (VBR). Modify the CIDR block of the subnet.
403	VbrConflict.CreateBackup	The subnet of the gateway conflicts with the VBR. Create a backup relationship first.	The error message returned because the subnet CIDR blocks of the specified SAG instance overlaps with the CIDR block of the specified VBR. Deploy the SAG instance as a backup of the Express Connect circuit.
403	SmartAccessGatewayNotBind	The instance has not yet been bound.	The error message returned because the specified SAG instance is associated with a CCN instance.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

5.36. ActivateSmartAccessGateway

Activates a Smart Access Gateway (SAG) device.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SAG instance belongs.
SmartAGId	String	Yes	sag-ke3kq4evpi8p6******	The ID of the SAG instance.
Action	String	No	ActivateSmartAccessGateway	The name of this action. Value: **ActivateSmartAccessGateway**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	E223E535-AE11-4158-B00F-DC107887A909	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=ActivateSmartAccessGateway
&RegionId=cn-hangzhou
&SmartAGId=sag-ke3kq4evpi8p6******
&<CommonParameters>
```

Response example

`XML` format

```
<ActivateSmartAccessGatewayResponse>
   <RequestId>E223E535-AE11-4158-B00F-DC107887A909</RequestId>
    </ActivateSmartAccessGatewayResponse>
```

`JSON` format

```
{
 "RequestId":"E223E535-AE11-4158-B00F-DC107887A909"
}
```

Errors

HTTP status code	Error code	Error message	Description
500	SmartAccessGatewayActivateFailed	An error has occurred while activating the specified Smart Access Gateway.	Failed to activate the SAG device. Please try again later.

For a list of error codes, visit the API Error Center.

5.37. DescribeSmartAccessGatewayHa

Queries the high-availability configurations of a Smart Access Gateway (SAG) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-shanghai	The ID of the region to which the SAG instance belongs.
SmartAGId	String	Yes	sag-pno62188piyc6txxxxx	The ID of the SAG instance to query.
Action	String	No	DescribeSmartAccessGatewayHa	The name of this action. Value: **DescribeSmartAccessGatewayHa**

Response parameters

Parameter	Type	Example value	Description
BackupDeviceId	String	sag11axxxx	The serial number of the standby device.
DeviceLevelBackupState	String	OFF	The device-level backup state. Valid values: **OFF | ON**
DeviceLevelBackupType	String	ColdStandbyMode	The type of the device-level high availability: • ColdStandbyMode: cold standby • HotStandbyMode: hot standby • NoBackupMode: no backup device
LinkBackupInfoList			The details of the backup link.
BackupLinkId	String	wan1	The ID of the backup connection.
BackupLinkState	String	down	The status of the backup connection.
LinkLevelBackupState	String	ON	The connection-level backup state.
LinkLevelBackupType	String	StandbyMode	The connection-level backup type.
MainLinkId	String	lte	The ID of the active connection.
MainLinkState	String	up	The state of the active connection.
MainDeviceId	String	sag11axxxx	The serial number of the active device.

Parameter	Type	Example value	Description
RequestId	String	582FE511-FEFE-42BC-BBF4-4F8ECF92Exxx	The ID of the request.
SmartAGId	String	sag-i8mogwi9kisigc3xxxx	The ID of the SAG instance.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DescribeSmartAccessGatewayHa
&RegionId=cn-hangzhou
&SmartAGId=sag-pno62188piyc6txxxxx
&<CommonParameters>
```

Response example

`XML` format

```
<DescribeSmartAccessGatewayHaResponse>
   <SmartAGId>sag-i8mogwi9kisigcxxxx</SmartAGId>
   <DeviceLevelBackupState>OFF</DeviceLevelBackupState>
   <LinkBackupInfoList>
      <LinkBackupInfoList>
         <LinkLevelBackupType>StandbyMode</LinkLevelBackupType>
         <MainLinkId>lte</MainLinkId>
         <BackupLinkState>down</BackupLinkState>
         <LinkLevelBackupState>ON</LinkLevelBackupState>
         <BackupLinkId>wan1</BackupLinkId>
         <MainLinkState>up</MainLinkState>
      </LinkBackupInfoList>
   </LinkBackupInfoList>
   <RequestId>582FE511-FEFE-42BC-BBF4-4F8ECF92E3C6</RequestId>
</DescribeSmartAccessGatewayHaResponse>
```

`JSON` format

```
{
 "SmartAGId":"sag-i8mogwi9kisigcxxxx",
 "DeviceLevelBackupState":"OFF",
 "LinkBackupInfoList":{
  "LinkBackupInfoList":[
   {
    "LinkLevelBackupType":"StandbyMode",
    "MainLinkId":"lte",
    "LinkLevelBackupState":"ON",
    "BackupLinkState":"down",
    "MainLinkState":"up",
    "BackupLinkId":"wan1"
   }
  ]
 },
 "RequestId":"582FE511-FEFE-42BC-BBF4-4F8ECF92E3C6"
}
```

Errors

For a list of error codes, visit the API Error Center.

5.38. AddSnatEntry

You can call this operation to add a source network address translation (SNAT) entry to a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	AddSnatEntry	The operation that you want to perform. Set the value to **AddSnatEntry**.
CidrBlock	String	Yes	192.168.0.1/24	The destination CIDR block.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-hgke**********	The ID of the SAG instance.
SnatIp	String	Yes	10.0.**. **	The public IP address.

Response parameters

Parameter	Type	Example	Description
RequestId	String	56BF6C79-C77D-41A0-86DD-A4B156E784EA	The ID of the request.
InstanceId	String	snat-m2obgkt5ya1puz****	The ID of the SNAT instance.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=AddSnatEntry
&CidrBlock=192.168.0.1/24
&RegionId=cn-hangzhou
&SmartAGId=sag-hgke**********
&SnatIp=10.0. **. **
&<Common request parameters>
```

Sample success responses

`XML` format

```
<AddSnatEntryResponse>
   <InstanceId>snat-m2obgkt5ya1puz****</InstanceId>
   <RequestId>56BF6C79-C77D-41A0-86DD-A4B156E784EA</RequestId>
    </AddSnatEntryResponse>
```

`JSON` format

```
{
"InstanceId":"snat-m2obgkt5ya1puz****",
"RequestId":"56BF6C79-C77D-41A0-86DD-A4B156E784EA"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
400	SNAT.CidrConfigExist	The specified SNAT CIDR block already exists.	The error message returned because the specified CIDR block in the SNAT entry already exists.
400	SNAT.AmountLimit	The maximum number of SNAT entries is exceeded.	The error message returned because the number of SNAT entries has reached the upper limit.
400	SNAT.SnatDnatIpConflict	The SNAT destination IP address is the same as the DNAT IP address.	The error message returned because the destination IP address in the SNAT entry overlaps with the IP address in the DNAT entry.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.
500	InternalError	An error occurred while processing your request.	The error message returned because an unknown error occurred.

For a list of error codes, visit the API Error Center.

5.39. DescribeSnatEntries

You can call this operation to query source network address translation (SNAT) entries associated with a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSnatEntries	The operation that you want to perform. Set the value to **DescribeSnatEntries**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn**********	The ID of the SAG instance.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	2	The number of entries to return on each page. Default value: **10**. Maximum value: **50**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	674BC3B2-5828-41D5-830E-148EE6CF86C2	The ID of the request.
TotalCount	Integer	12	The total number of SNAT entries.
PageNumber	Integer	12	The page number of the returned page.
PageSize	Integer	5	The number of entries returned per page.
SnatEntries	Array		The information about the SNAT entries.
InstanceId	String	snat-sl7kb9cpgfds*****	The ID of the SNAT entry.
CidrBlock	String	192.169.10.0/24	The destination CIDR block.
SnatIp	String	10.10.**. **	The public IP address.
CreateTime	Long	1523604565000	The time when the SNAT entry was created.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeSnatEntries
&RegionId=cn-hangzhou
&SmartAGId=sag-whfn**********
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSnatEntriesResponse>
      <PageNumber>1</PageNumber>
   <PageSize>10</PageSize>
   <RequestId>674BC3B2-5828-41D5-830E-148EE6CF86C2</RequestId>
   <SnatEntries>
      <SnatEntry>
         <CidrBlock>192.169.10.0/24</CidrBlock>
         <CreateTime>1523604565000</CreateTime>
         <InstanceId>snat-sl7kb9cpgfdsjr****</InstanceId>
         <SnatIp>10.10.10.3</SnatIp>
      </SnatEntry>
      <SnatEntry>
         <CidrBlock>10.0.0.0/8</CidrBlock>
         <CreateTime>1523604565000</CreateTime>
         <InstanceId>snat-m2obgkt5ya****</InstanceId>
         <SnatIp>192.168.3.0</SnatIp>
      </SnatEntry>
   </SnatEntries>
   <TotalCount>2</TotalCount>
    </DescribeSnatEntriesResponse>
```

`JSON` format

```
{
"PageNumber":1,
"PageSize":10,
"RequestId":"674BC3B2-5828-41D5-830E-148EE6CF86C2",
"SnatEntries":{
"SnatEntry":[
{
"CidrBlock":"192.169.10.0/24",
"CreateTime":"1523604565000",
"InstanceId":"snat-sl7kb9cpgfdsjr****",
"SnatIp":"10.10.10.3"
},
{
"CidrBlock":"10.0.0.0/8",
"CreateTime":"1523604565000",
"InstanceId":"snat-m2obgkt5ya1puz****",
"SnatIp":"192.168.3.0"
}
]
},
"TotalCount":2
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.40. DeleteSnatEntry

Deletes a SNAT entry added to a Smart Access Gateway (SAG) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
InstanceId	String	Yes	snat-djngdheb*******	The ID of the SNAT entry.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SAG instance belongs.
SmartAGId	String	Yes	sag-hfbd*******	The ID of the SAG instance.
Action	String	No	DeleteSnatEntry	The name of this action. Value: **DeleteSnatEntry**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	68CE10C0-2EFF-4B82-9907-10AB7E2B0A6C	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DeleteSnatEntry
&InstanceId=snat-djngdheb*******
&RegionId=cn-hangzhou
&SmartAGId=sag-hfbd*******
&<CommonParameters>
```

Response example

`XML` format

```
<DeleteSnatEntryResponse>
   <RequestId>68CE10C0-2EFF-4B82-9907-10AB7E2B0A6C</RequestId>
    </DeleteSnatEntryResponse>
```

`JSON` format

```
{
 "RequestId":"68CE10C0-2EFF-4B82-9907-10AB7E2B0A6C"
}
```

Errors

For a list of error codes, visit the API Error Center.

5.41. AddDnatEntry

You can call this operation to add a destination network address translation (DNAT) entry to a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	AddDnatEntry	The operation that you want to perform. Set the value to **AddDnatEntry**.
ExternalPort	String	Yes	80	The Internet-facing port. Valid values: **1 to 65535**.
InternalIp	String	Yes	192.168.0.1	The IP address of the destination private network.
InternalPort	String	Yes	80	The destination private port. Valid values: **1 to 65535**.
IpProtocol	String	Yes	TCP	The protocol used in DNAT. Valid values: • **TCP**: forwards TCP packets. • **UDP**: forwards UDP packets. • **Any**: forwards packets of all protocols.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SagId	String	Yes	sag-kdhg*******	The ID of the SAG instance. **Note** Only SAG instances used to manage SAG devices supported DNAT.
Type	String	Yes	Intranet	The type of the DNAT entry. Valid values: • **Intranet**: the default value. Translates the destination IP address to a specific internal IP address. • **Internet**: translates the destination IP address to a specific public IP address.
ExternalIp	String	No	10.10.1.xx	The public IP address. **Note** If the DNAT entry is used to forward packets transmitted over the Internet, the DNAT entry automatically recognizes the current public IP address.

Response parameters

Parameter	Type	Example	Description
DnatEntryId	String	fwd-kxe4fq3xuzczze****	The ID of the DNAT entry.
RequestId	String	56BF6C79-C77D-41A0-86DD-A4B156E784EA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=AddDnatEntry
&ExternalPort=80
&InternalIp=192.168.0.1
&InternalPort=80
&IpProtocol=TCP
&RegionId=cn-hangzhou
&SagId=sag-kdhg*******
&Type=Intranet
&<Common request parameters>
```

Sample success responses

`XML` format

```
<AddDnatEntryResponse>
     <DnatEntryId>fwd-kxe4fq3xuzczze****</DnatEntryId>
     <RequestId>56BF6C79-C77D-41A0-86DD-A4B156E784EA</RequestId>
</AddDnatEntryResponse>
```

`JSON` format

```
{
 "RequestId":"56BF6C79-C77D-41A0-86DD-A4B156E784EA",
 "DnatEntryId":"fwd-kxe4fq3xuzczze****"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all required parameters.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a specified parameter is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal error occurred.
400	InvalidRegionID	The specified regionId does not exist.	The error message returned because the specified region ID (RegionId) does not exist.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
400	MissingParam	You must specify the parameter.	The error message returned because a required parameter is not specified.

HttpCode	Error code	Error message	Description
400	IllegalParam	The parameter is invalid.	The error message returned because a specified parameter is invalid.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG instance does not support this feature.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified ID of the SAG instance is invalid.
400	DuplicatedDnatEntry	The specified ExternalIp, IpProtocol, ExternalPort, InternalIp, and InternalPort are duplicated.	The error message returned because the specified public IP address, protocol, external-facing port, internal IP address, or Internal-facing port is duplicate.

For a list of error codes, visit the API Error Center.

5.42. DescribeDnatEntries

You can call this operation to query DNAT entries associated with a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeDnatEntries	The operation that you want to perform. Set the value to **DescribeDnatEntries**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SagId	String	Yes	sag-djgd**********	The ID of the SAG instance. **Note** Only SAG instances used to manage SAG devices supported DNAT.
Type	String	No	Intranet	The type of the DNAT entry. Valid values: • **Intranet**: the default value. Translates the destination IP address to a specific internal IP address. • **Internet**: translates the destination IP address to a specific public IP address.
PageSize	Integer	No	12	The number of entries to return on each page. Default value: **10**. Maximum value: **50**.

Parameter	Type	Required	Example	Description
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	635640CA-2335-4856-A9CB-1CB5C444DC5A	The ID of the request.
TotalCount	Integer	50	The total number of entries returned.
PageNumber	Integer	12	The page number of the returned page. Default value: **1**.
PageSize	Integer	1	The number of entries returned per page. Default value: **10**. Maximum value: **50**.
DnatEntries	Array		The list of DNAT entries.
DnatEntryId	String	fwd-kxe4fq3xuzczze****	The ID of the DNAT entry.
Type	String	Intranet	The type of the DNAT entry. Valid values: • **Intranet**: the default value. Translates the destination IP address to a specific internal IP address. • **Internet**: translates the destination IP address to a specific public IP address.
SagId	String	sag-jfh********	The ID of the SAG instance.
ExternalIp	String	10.10.**. **	The public IP address.
ExternalPort	String	12	The Internet-facing port. Valid values: **1 to 65535**.
InternalIp	String	192.168.0.1	The IP address of the private network for which packets are destined.
IpProtocol	String	tcp	The protocol used in DNAT. Valid values: • tcp: forwards TCP packets. • udp: forwards UDP packets. • any: forwards packets of all protocols.
InternalPort	String	80	The port number of the private network for which packets are destined. Valid values: **1 to 65535**.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeDnatEntries
&RegionId=cn-hangzhou
&SagId=sag-djgd*************
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeDnatEntriesResponse>
      <DnatEntries></DnatEntries>
   <PageNumber>1</PageNumber>
   <PageSize>10</PageSize>
   <RequestId>635640CA-2335-4856-A9CB-1CB5C444DC5A</RequestId>
   <TotalCount>0</TotalCount>
    </DescribeDnatEntriesResponse>
```

`JSON` format

```
{
"DnatEntries":{
"DnatEntry":[]
},
"PageNumber":1,
"PageSize":10,
"RequestId":"635640CA-2335-4856-A9CB-1CB5C444DC5A",
"TotalCount":0
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all required parameters.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a specified parameter is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal error occurred.

For a list of error codes, visit the API Error Center.

5.43. DeleteDnatEntry

Deletes a DNAT entry from a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteDnatEntry	The operation that you want to perform. Set the value to **DeleteDnatEntry**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
SagId	String	Yes	sag-ntwc9r1a6z3xz0****	The ID of the SAG instance.
DnatEntryId	String	Yes	fwd-kxe4fq3xuzczze****	The ID of the DNAT entry. You can call the DescribeDnatEntries operation to query the most recent DNAT entry list.

Response parameters

Parameter	Type	Example	Description
RequestId	String	68CE10C0-2EFF-4B82-9907-10AB7E2B0A6C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteDnatEntry
&RegionId=cn-shanghai
&SagId=sag-ntwc9r1a6z3xz0****
&DnatEntryId=fwd-kxe4fq3xuzczze****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<?xml version="1.0" encoding="UTF-8" ?>
<DeleteDnatEntryResponse>
    <RequestId>68CE10C0-2EFF-4B82-9907-10AB7E2B0A6C</RequestId>
</DeleteDnatEntryResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "68CE10C0-2EFF-4B82-9907-10AB7E2B0A6C"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a parameter is set to an invalid value.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error occurred.

For a list of error codes, visit the API Error Center.

5.44. RebootSmartAccessGateway

Restarts a Smart Access Gateway (SAG) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-shanghai	The ID of the region to which the SAG instance belongs.
SmartAGId	String	Yes	sag-w9unmktmupcde*****	The ID of the SAG instance.
Action	String	No	RebootSmartAccessGateway	The name of this action. Value: **RebootSmartAccessGateway**
SerialNumber	String	No	a1b2c3d4e5f6g7h8f9	The serial number of the SAG device.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	B1792769-5CC3-4D6F-A5A5-E6408EBFBAD0	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=RebootSmartAccessGateway
&RegionId=cn-shanghai
&SmartAGId=sag-w9unmktmupcde*****
&<CommonParameters>
```

Response example

`XML` format

```
<RebootSmartAccessGatewayResponse>
   <requestId>B1792769-5CC3-4D6F-A5A5-E6408EBFBAD0</requestId>
</RebootSmartAccessGatewayResponse>
```

`JSON` format

```
{
 "requestId":"B1792769-5CC3-4D6F-A5A5-E6408EBFBAD0"
}
```

Errors

For a list of error codes, visit the API Error Center.

5.45. UnlockSmartAccessGateway

Unlocks a Smart Access Gateway (SAG) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
SmartAGId	String	Yes	sag-w9unmktmupcde*****	The ID of the SAG instance.
Action	String	No	UnlockSmartAccessGateway	The name of this action. Value: **UnlockSmartAccessGateway**
RegionId	String	No	cn-shanghai	The ID of the region to which the SAG instance belongs.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	05DC546B-DBF9-4028-88CD-1742AB4E014C	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=UnlockSmartAccessGateway
&SmartAGId=sag-w9unmktmupcde*****
&<CommonParameters>
```

Response example

`XML` format

```
<UnlockSmartAccessGatewayResponse>
   <RequestId>05DC546B-DBF9-4028-88CD-1742AB4E014C</RequestId>
</UnlockSmartAccessGatewayResponse>
```

`JSON` format

```
{
 "RequestId":"05DC546B-DBF9-4028-88CD-1742AB4E014C"
}
```

Errors

HTTP status code	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	You are not authorized to operate on this resource.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The specified SmartAGId is invalid.
403	MissingParameter	The input parameter is missing, please check your input.	One or more required parameters are missing.

For a list of error codes, visit the API Error Center.

5.46. ModifySmartAccessGatewayUpBandwidth

You can call this operation to modify the parameters of a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
SmartAGId	String	Yes	sag-jsy**********	The ID of the SAG instance.
Action	String	No	ModifySmartAccessGatewayUpBandwidth	The operation that you want to perform. Set the value to **ModifySmartAccessGatewayUpBandwidth**.
RegionId	String	No	cn-hangzhou	The ID of the region where the SAG instance is deployed.
UpBandwidth4G	Integer	No	3	The maximum upstream bandwidth of 4G network connections established by the SAG device.
UpBandwidthWan	Integer	No	2	The maximum upstream bandwidth of network connections established on the WAN port of the SAG device.

Response parameters

Parameter	Type	Example	Description
RequestId	String	EE837E9F-BD50-4C2B-9E47-260F9D848480	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifySmartAccessGatewayUpBandwidth
&SmartAGId=sag-jsy*****************
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySmartAccessGatewayUpBandwidthResponse>
   <RequestId>68CE10C0-2EFF-4B82-9907-10AB7E2B0A6C</RequestId>
    </ModifySmartAccessGatewayUpBandwidthResponse>
```

`JSON` format

```
{
 "RequestId":"68CE10C0-2EFF-4B82-9907-10AB7E2B0A6C"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all require parameters.
400	InvalidName	The specified name is invalid.	The error message returned because the specified name is invalid.
400	SAG.NotAllowConfigCidr	You cannot specify a static CIDR block when the dynamic routing strategy is used.	The error message returned because dynamic routing mode does not support static CIDR blocks.
400	InvalidDescription	The specified description is invalid.	The error message returned because the specified description is invalid.
403	InvalidCidr	Cidr is illegal, please check your input.	The error message returned because the specified CIDR block is invalid. Check the specified CIDR block.
400	SAG.InvalidRoutingStrategy	The specified routing strategy is invalid.	The error message returned because the specified routing mode is invalid.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.

For a list of error codes, visit the API Error Center.

5.47. BindVbr

You can call this operation to associate a Smart Access Gateway (SAG) instance with a virtual border router (VBR).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	BindVbr	The operation that you want to perform. Set the value to **BindVbr**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-jed**********	The ID of the SAG instance.
VbrId	String	Yes	vbr-shf**********	The ID of the VBR that you want to associate with the SAG instance.
VbrRegionId	String	Yes	cn-hangzhou	The ID of the region where the VBR is deployed.
SmartAGUid	Long	No	1688401595963306	The UID of the Alibaba Cloud account that owns the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	09A2010F-602B-4EC6-A60F-9914AAE2DCA0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=BindVbr
&RegionId=cn-hangzhou
&SmartAGId=sag-jed**********
&VbrId=vbr-shf**********
&VbrRegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<BindVbrResponse>
   <RequestId>09A2010F-602B-4EC6-A60F-9914AAE2DCA0</RequestId>
</BindVbrResponse>
```

`JSON` format

```
{
    "RequestId":"09A2010F-602B-4EC6-A60F-9914AAE2DCA0"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Forbbiden.SubUser	You are not authorized to operate on the specified resource.	The error message returned because the RAM user does not have the permission to manage the specified resource.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.
400	InvalidId.VBR	The specified VBR instance is invalid. You must specify a VBR instance that is associated with an ECC instance.	The error message returned because the specified VBR is invalid. Check whether the VBR is an Express Cloud Connect (ECC) instance.
400	SAG.SoftwareNoSupportVbr	You cannot bind an SAG software instance with a VBR instance.	The error message returned because the specified SAG instance cannot be associated with VBRs.
403	NotBoundCCN	The specified smart access gateway has not bound CCN; please bind CCN first.	The error message returned because the specified SAG instance is not associated with a Cloud Connect Network (CCN) instance. Associate the SAG instance with a CCN instance first.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
400	SAG.VbrNotBondCen	Bind the specified VBR instance to a CEN instance first.	The error message returned because the specified VBR is not associated with a Cloud Enterprise Network (CEN) instance. Associate the VBR with a CEN instance first.
403	VbrConflict.CreateBackup	The subnet of the gateway conflicts with the VBR. Create a backup relationship first.	The error message returned because the subnet CIDR block of the specified SAG instance overlap with the CIDR block of the specified VBR. Deploy the SAG instance as a backup of the leased line first.
400	SAG.VbrBound	The specified SAG instance is bound to another VBR instance. Unbind them first.	The error message returned because the specified SAG instance is already associated with a VBR. Disassociate the SAG instance from the VBR first.
400	LinkLevelBackupExists	The specified SAG instance is already used as a leased line backup.	The error message returned because the specified SAG instance is already used as a backup of the leased line.
400	SAG.VbrBoundToSAG	The specified VBR instance is bound to another SAG instance. Unbind them first.	The error message returned because the specified VBR is already associated with another SAG instance. Disassociate the VBR from the SAG instance first.
500	InternalError	An error occurred while processing your request.	The error message returned because an unknown error occurred.

For a list of error codes, visit the API Error Center.

5.48. GrantSagInstanceToCcn

You can call this operation to authorize a Smart Access Gateway (SAG) instance to communicate with a Cloud Connect Network (CCN) instance under another Alibaba Cloud account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	GrantSagInstanceToCcn	The operation that you want to perform. Set the value to **GrantSagInstanceToCcn**.
CcnInstanceId	String	Yes	ccn-jdh**********	The ID of the CCN instance.
CcnUid	Long	Yes	123535455445666	The UID of the Alibaba Cloud account that owns the CCN instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-hdh************	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6E1674AC-083C-4031-B047-7A66E418E0C6	The ID of the request.
InstanceId	String	sgc-e8lgeu4wzf*******	The ID returned after the specified SAG instance is authorized to communicate with the specified CCN instance.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=GrantSagInstanceToCcn
&CcnInstanceId=ccn-jdh**********
&CcnUid=123535455445666
&RegionId=cn-hangzhou
&SmartAGId=sag-hdh************
&<Common request parameters>
```

Sample success responses

`XML` format

```
<GrantSagInstanceToCcnResponse>
   <InstanceId>sgc-e8lgeu4w********</InstanceId>
   <RequestId>5F40561D-1EB7-48CB-AA5B-79713E003356</RequestId>
</GrantSagInstanceToCcnResponse>
```

`JSON` format

```
{
    "InstanceId":"sgc-e8lgeu4w********",
    "RequestId":"5F40561D-1EB7-48CB-AA5B-79713E003356"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	CCN.InvalidUid	The specified CCN user ID is invalid.	The error message returned because the specified UID of the Alibaba Cloud account that owns the specified CCN instance is invalid.
400	CCN.InvalidId	You must specify the CCN instance ID.	The error message returned because the specified CCN instance ID does not exist.
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the SAG instance ID is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.GrantDuplicated	You have authorized another CCN instance to bind to the specified SAG instance. Revoke the authorization first.	The error message returned because the specified SAG instance is already associated with another CCN instance. Disassociate the SAG instance from the CCN instance first.

For a list of error codes, visit the API Error Center.

5.49. DescribeGrantSagRules

You can call this operation to query rules that authorize a Smart Access Gateway (SAG) instance to communicate with Cloud Connect Network (CCN) instances that are under other Alibaba Cloud accounts.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeGrantSagRules	The operation that you want to perform. Set the value to **DescribeGrantSagRules**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-hdg**********	The ID of the SAG instance.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.

Parameter	Type	Required	Example	Description
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Maximum value: **50**.

Response parameters

Parameter	Type	Example	Description
GrantRules	Array		The rule that authorizes the SAG instance to communicate with a CCN instance under another Alibaba Cloud account.
GrantRule			
CcnInstanceId	String	ccn-hd**********	The ID of the CCN instance.
CcnUid	Long	13323444243434	The UID of the Alibaba Cloud account that owns the CCN instance.
CreateTime	Long	156576751700	The time when the rule was created.
InstanceId	String	1688401595963306	The UID of the Alibaba Cloud account that owns the SAG instance.
SmartAGId	String	sag-hdhgn*****	The ID of the SAG instance.
PageNumber	Integer	2	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	6E1674AC-083C-4031-B047-7A66E418E0C6	The ID of the request.
TotalCount	Integer	2	The total number of rules.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeGrantSagRules
&RegionId=cn-hangzhou
&SmartAGId=sag-hdg*************
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeGrantSagRulesResponse>
   <GrantRules>
      <GrantRule>
         <CcnInstanceId>ccn-4dwoqcqu******</CcnInstanceId>
         <CcnUid>1688401595963306</CcnUid>
         <CreateTime>1565767517000</CreateTime>
         <InstanceId>1688401595963306</InstanceId>
         <SmartAGId>sag-7sc8ib3noaov*****</SmartAGId>
      </GrantRule>
   </GrantRules>
   <PageNumber>1</PageNumber>
   <PageSize>10</PageSize>
   <RequestId>25B3FD03-DC56-4B88-8730-273485FAE0DC</RequestId>
   <TotalCount>1</TotalCount>
    </DescribeGrantSagRulesResponse>
```

`JSON` format

```
{
    "GrantRules":{
        "GrantRule":[
            {
                "CcnInstanceId":"ccn-4dwoqcqu******",
                "CcnUid":1688401595963306,
                "CreateTime":1565767517000,
                "InstanceId":1688401595963306,
                "SmartAGId":"sag-7sc8ib3noaov*****"
            }
        ]
    },
    "PageNumber":1,
    "PageSize":10,
    "RequestId":"25B3FD03-DC56-4B88-8730-273485FAE0DC",
    "TotalCount":1
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.50. RevokeSagInstanceFromCcn

Revokes the authorization from a Smart Access Gateway (SAG) instance to a Cloud Connect Network (CCN) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
CcnInstanceId	String	Yes	ccn-jf********	The ID of the CCN instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SAG instance belongs.
SmartAGId	String	Yes	sag-hd**********	The ID of the SAG instance.

Parameter	Type	Required?	Example value	Description
Action	String	No	RevokeSagInstanceFromCcn	The name of this action. Value: **RevokeSagInstanceFromCcn**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	BCB97739-0CB5-4C94-9A5C-13051FFAB0E9	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=RevokeSagInstanceFromCcn
&CcnInstanceId=ccn-jf********
&RegionId=cn-hangzhou
&SmartAGId=sag-hd**************
&<CommonParameters>
```

Response example

`XML` format

```
<RevokeSagInstanceFromCcnResponse>
   <RequestId>BCB97739-0CB5-4C94-9A5C-13051FFAB0E9</RequestId>
    </RevokeSagInstanceFromCcnResponse>
```

`JSON` format

```
{
 "RequestId":"BCB97739-0CB5-4C94-9A5C-13051FFAB0E9"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	You must specify the SmartAGId.
400	CCN.InvalidId	You must specify the CCN instance ID.	The specified CcnInstanceId does not exist.

For a list of error codes, visit the API Error Center.

5.51. ModifySagRemoteAccess

Modifies the remote access IP address of a Smart Access Gateway (SAG) device.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
SerialNumber	String	Yes	sag-100-v1p7-9	The serial number (SN) of the SAG device.
SmartAGId	String	Yes	sag-r79m060r6oy55******	The ID of the corresponding SAG instance.
Action	String	No	ModifySagRemoteAccess	The name of this action. Value: **ModifySagRemoteAccess**
RemoteAccessIp	String	No	10.XX.XX.2	The remote access IP address of the SAG device.

Response parameters

Parameter	Type	Example value	Description
Code	String	200	The returned status code.
Message	String	Successful	The message returned after calling the API.
RemoteAccessIp	String	10.XX.XX.2	The remote access IP address.
RequestId	String	4FF203D7-462D-498E-94F9-2B2FA462DD23	The ID of the request.
SerialNumber	String	sag61a344**	The SN of the SAG device.
Success	Boolean	true	Indicates whether the API call is successful.

Examples

Request example

```
http(s)://[Endpoint]/? Action=ModifySagRemoteAccess
&SerialNumber=sag-100-v1p7-9
&SmartAGId=sag-r79m060r6oy55******
&<CommonParameters>
```

Response example

`XML` format

```
<ModifySagRemoteAccessResponse>
   <RemoteAccessIp>10.XX.XX.2</RemoteAccessIp>
   <SerialNumber>sag61a344ge</SerialNumber>
   <Message>Successful</Message>
   <RequestId>4FF203D7-462D-498E-94F9-2B2FA462DD23</RequestId>
   <Success>true</Success>
   <Code>200</Code>
    </ModifySagRemoteAccessResponse>
```

`JSON` format

```
{
 "SerialNumber":"sag61a344ge",
 "RemoteAccessIp":"10.XX.XX.2",
 "Message":"Successful",
 "RequestId":"4FF203D7-462D-498E-94F9-2B2FA462DD23",
 "Success":true,
 "Code":"200"
}
```

Errors

HTTP status code	Error code	Error message	Description
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The version of the SAG device does not support this function.
400	VersionNotExist	The specified version does not exist.	The specified version does not exist.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The specified SmartAGId is invalid.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The status of the specified SAG instance does not permit this operation.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The version of the standby SAG device does not support this function.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The version of the active SAG device does not support this function.
403	IllegalRemoteIp.Conflict	The specified IP address has been used.	The specified remote access IP address is being used by other resources.
403	IllegalRemoteIp.RouteTableEntryConflict	The specified IP address conflicts with route table entries.	The specified remote access IP address conflicts with route table entries.

For a list of error codes, visit the API Error Center.

5.52. ClearSagCipher

Resets the key of a Smart Access Gateway (SAG) vCPE device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ClearSagCipher	The operation that you want to perform. Set the value to **ClearSagCipher**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.

Parameter	Type	Required	Example	Description
SagId	String	Yes	sag-0nntegltw6z4b****	The ID of the SAG instance.
SnNumber	String	Yes	sag42c3****	The serial number of the SAG vCPE device.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3712F0B2-721E-4FBF-BBEF-888E3BFE0A20	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=ClearSagCipher
&RegionId=cn-shanghai
&SagId=sag-0nntegltw6z4b****
&SnNumber=sag42c3****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ClearSagCipherResponse>
  <RequestId>69E19A6D-8114-4D57-94A0-14CC7CA578C8</RequestId>
</ClearSagCipherResponse>
```

`JSON` format

```
{
    "RequestId": "69E19A6D-8114-4D57-94A0-14CC7CA578C8"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all required parameters.

For a list of error codes, visit the API Error Center.

5.53. ListSmartAGApiUnsupportedFeature

Queries features that are not supported by a specified Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListSmartAGApiUnsupportedFeature	The operation that you want to perform. Set the value to **ListSmartAGApiUnsupportedFeature**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-4d6i45zess8nj4****	The ID of the SAG instance with which the SAG device is associated.
SerialNumber	String	Yes	sage62x052614****	The serial number of the SAG device.
OpenApiName	String	Yes	ModifySagWan	The API operation for the unsupported feature.

Response parameters

Parameter	Type	Example	Description
RequestId	String	7459545D-2F0D-43E6-9957-CB7E0223332B	The ID of the request.
Features	Array of Feature		A list of unsupported features.
Feature	String	ISP	The unsupported feature. For more information about the description of each feature, see the related API reference.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListSmartAGApiUnsupportedFeature
&RegionId=cn-shanghai
&SmartAGId=sag-4d6i45zess8nj4****
&SerialNumber=sage62x052614****
&OpenApiName=ModifySagWan
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListSmartAGApiUnsupportedFeatureResponse>
    <RequestId>7459545D-2F0D-43E6-9957-CB7E0223332B</RequestId>
    <Features>
        <Feature>ISP</Feature>
    </Features>
</ListSmartAGApiUnsupportedFeatureResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "7459545D-2F0D-43E6-9957-CB7E0223332B",
  "Features" : [ {
    "Feature" : "ISP"
  } ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidSmartAGId.NotFound	The specified SmartAGId does not exist.	The error message returned because the specified SAG instance ID does not exist.
400	Sag.DeviceNotExist	The specified device does not exist.	The error message returned because the specified SAG device does not exist.

For a list of error codes, visit the API Error Center.

5.54. DeleteSmartAccessGateway

Deletes a Smart Access Gateway (SAG) instance.

Prerequisites

- The SAG instance that you want to delete is an SAG CPE instance or an SAG vCPE instance.
- The SAG instance that you want to delete is locked due to overdue payments.
- The SAG instance that you want to delete is not associated with a Cloud Connect Network (CCN) instance or a virtual border router (VBR). If the SAG instance is associated with a CCN instance or a VBR, dissociate the SAG instance from the CCN instance or VBR first. For more information, see Detach a network.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteSmartAccessGateway	The operation that you want to perform. Set the value to **DeleteSmartAccessGateway**.
InstanceId	String	Yes	sag-far8v6owtdxlua****	The ID of the SAG instance that you want to delete.
RegionId	String	No	cn-hangzhou	The ID of the region where the SAG instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	E26DBAAE-A796-4A48-98B4-B45AFCD1F299	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteSmartAccessGateway
&InstanceId=sag-far8v6owtdxlua****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteSmartAccessGatewayResponse>
  <RequestId>D133AFFC-6E37-414D-8ECD-246DEBE4388D</RequestId>
</DeleteSmartAccessGatewayResponse>
```

`JSON` format

```
{
 "RequestId": "D133AFFC-6E37-414D-8ECD-246DEBE4388D"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all required parameters.

For a list of error codes, visit the API Error Center.

5.55. DescribeSagVbrRelations

Queries whether a specified virtual border router (VBR) is associated with a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeSagVbrRelations	The operation that you want to perform. Set the value to DescribeSagVbrRelations.
VbrInstanceIds.N	RepeatList	Yes	vbr-bp15ihkk93ezxppkd****	The ID of the VBR. You can specify one or more VBRs in each call. The maximum value of N is 20.
VbrRegionId	String	Yes	cn-hangzhou	The ID of the region where the VBR is deployed.
RegionId	String	No	cn-shanghai	The ID of the region where the SAG instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	17D79124-104A-42DB-8FCA-CE2957CD1723	The ID of the request.
SagVbrRelations	Array of SagVbrRelation		Indicates whether the specified VBR is associated with an SAG instance.
SagInstanceId	String	sag-0nntegltw6z4b****	The ID of the SAG instance.
SagUid	String	168840151212121212	The user ID (UID) of the Alibaba Cloud account to which the SAG instance belongs.
VbrInstanceId	String	vbr-bp15ihkk93ezxppk****	The ID of the VBR.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeSagVbrRelations
&VbrInstanceIds.1=vbr-bp15ihkk93ezxppkd****
&VbrRegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagVbrRelationsResponse>
  <RequestId>17D79124-104A-42DB-8FCA-CE2957CD1723</RequestId>
  <SagVbrRelations>
        <VbrInstanceId>vbr-bp15ihkk93ezxppkd****</VbrInstanceId>
        <SagInstanceId>sag-0nntegltw6z4b****</SagInstanceId>
        <SagUid>16884015</SagUid>
  </SagVbrRelations>
</DescribeSagVbrRelationsResponse>
```

`JSON` format

```
{
 "RequestId": "17D79124-104A-42DB-8FCA-CE2957CD1723",
 "SagVbrRelations": [
  {
   "VbrInstanceId": "vbr-bp15ihkk93ezxppkd****",
   "SagInstanceId": "sag-0nntegltw6z4b****",
   "SagUid": "16884015"
  }
 ]
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.

HttpCode	Error code	Error message	Description
400	Param.InvalidVersionComparator	The specified version comparison operator is invalid.	The error message returned because the specified operator used to filter SAG instance versions is invalid.
400	InvalidRegionID	The specified regionId does not exist.	The error message returned because the specified region ID does not exist.

For a list of error codes, visit the API Error Center.

5.56. ModifySAGAdminPassword

Modifies the logon password of a smart access gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifySAGAdminPassword	The operation that you want to perform. Set the value to **ModifySAGAdminPassword**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-tq3sazs17smldn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number (SN) of the SAG device.
Password	String	Yes	********	The new logon password for the SAG device. The password must be 8 to 30 characters in length and can contain letters, digits, and underscores (_). **Note** In the example, asterisks (*) are used to conceal the real password. This does not mean that the password supports asterisks (*). The actual format requirement prevails.

Response parameters

Parameter	Type	Example	Description
RequestId	String	DB0A026C-A8E5-40AB-977E-3A87DD78F694	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifySAGAdminPassword
&RegionId=cn-shanghai
&SmartAGId=sag-tq3sazs17smldn****
&SmartAGSn=sag32a30****
&Password=********
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ModifySAGAdminPasswordResponse>
    <RequestId>DB0A026C-A8E5-40AB-977E-3A87DD78F694</RequestId>
</ModifySAGAdminPasswordResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "DB0A026C-A8E5-40AB-977E-3A87DD78F694"
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	IllegalParam.Password	The specified Password is invalid.	The error message returned because the value of the Password parameter is invalid.
400	MissingParam.Password	You must specify Password.	The error message returned because the value of the Password parameter is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the SAG APP instance does not support access control lists (ACLs).
400	SAG.SoftwareNotSupportFeature	The specified SAG Software instance does not support this feature.	The error message returned because the SAG APP instance does not support this feature.
400	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance.
400	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
400	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.

HTTP status code	Error code	Error message	Description
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance ID does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network configurations are not synchronized between the SAG instance and the SAG device.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

5.57. ListAccessPoints

Queries access points in a specific region.

Background information

An access point connects Smart Access Gateway (SAG) instances to Cloud Connect Network (CCN). In some regions, more than one access point is deployed. After an SAG instance is associated with a CCN instance, the system selects the nearest access point to establish connections to Alibaba Cloud. This topic describes how to query access points in a specific region. For more information about CCN areas, see Introduction to CCN.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates a sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListAccessPoints	The operation that you want to perform. Set the value to **ListAccessPoints**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the access points are queried. You can call the DescribeRegions operation to query region IDs.
PageSize	Integer	No	20	The number of entries to return on each page.
SmartAGId	String	No	sag-far8v6owtdxlua****	The ID of the SAG instance.

Parameter	Type	Required	Example	Description
PageNumber	Integer	No	1	The number of the page to return. Pages start from page 1. Default value: **1**.

Response parameters

Parameter	Type	Example	Description
AccessPoints	Array of AccessPoint		A list of access points.
AccessPointId	Integer	401	The ID of the access point.
ActiveSmartAGCount	Integer	0	The number of available SAG instances in the access point.
InactiveSmartAGCount	Integer	7	The number of offline SAG instances in the access point.
Latitude	String	103.81****	The latitude of the access point.
Longitude	String	1.35****	The longitude of the access point.
RequestId	String	E26DBAAE-A796-4A48-98B4-B45AFCD1F299	The ID of the request.
TotalCount	Integer	2	The total number of access points.

Examples

Sample requests

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

Sample success responses

`XML` format

```
<ListAccessPointsResponse>
  <AccessPoints>
        <AccessPointId>401</AccessPointId>
        <ActiveSmartAGCount>0</ActiveSmartAGCount>
        <Latitude>103.81****</Latitude>
        <InactiveSmartAGCount>7</InactiveSmartAGCount>
        <Longitude>1.35****</Longitude>
  </AccessPoints>
  <AccessPoints>
        <AccessPointId>402</AccessPointId>
        <ActiveSmartAGCount>0</ActiveSmartAGCount>
        <Latitude>24.6****</Latitude>
        <InactiveSmartAGCount>13</InactiveSmartAGCount>
        <Longitude>-28.4****</Longitude>
  </AccessPoints>
  <TotalCount>2</TotalCount>
  <RequestId>E26DBAAE-A796-4A48-98B4-B45AFCD1F299</RequestId>
</ListAccessPointsResponse>
```

`JSON` format

```
{
 "AccessPoints": [
  {
   "AccessPointId": 401,
   "ActiveSmartAGCount": 0,
   "Latitude": "103.81****",
   "InactiveSmartAGCount": 7,
   "Longitude": "1.35****"
  },
  {
   "AccessPointId": 402,
   "ActiveSmartAGCount": 0,
   "Latitude": "24.6****",
   "InactiveSmartAGCount": 13,
   "Longitude": "-28.4****"
  }
 ],
 "TotalCount": 2,
 "RequestId": "E26DBAAE-A796-4A48-98B4-B45AFCD1F299"
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.58. ListAccessPointNetworkQualities

Queries network qualities of endpoints for Smart Access Gateway (SAG) instances.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListAccessPointNetworkQualities	The operation that you want to perform. Set the value to **ListAccessPointNetworkQualities**.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
SmartAGId	String	Yes	sag-p86e06z4geaji1****	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
AccessPointNetworkQualities	Array of AccessPointNetworkQuality		The network quality of the endpoint.
Loss	String	0.00%	The packet loss rate.
Rtt	String	4.98	The network latency. Unit: milliseconds.
Id	Integer	115	The ID of the endpoint.
RequestId	String	8E8E8C86-1404-122A-A1BB-84BBC2E9A4B1	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListAccessPointNetworkQualities
&RegionId=cn-shanghai
&SmartAGId=sag-p86e06z4geaji1****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListAccessPointNetworkQualitiesResponse>
    <AccessPointNetworkQualities>
        <Rtt>4.98</Rtt>
        <Loss>0.00%</Loss>
        <Id>115</Id>
    </AccessPointNetworkQualities>
    <RequestId>8E8E8C86-1404-122A-A1BB-84BBC2E9A4B1</RequestId>
</ListAccessPointNetworkQualitiesResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "AccessPointNetworkQualities" : [ {
    "Rtt" : "4.98",
    "Loss" : "0.00%",
    "Id" : 115
  } ],
  "RequestId" : "8E8E8C86-1404-122A-A1BB-84BBC2E9A4B1"
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.59. ProbeAccessPointNetworkQuality

Tests the connectivity between a Smart Access Gateway (SAG) instance and a specified access point.

Background information

You can call this operation to test the connectivity between an SAG instance and a specified access point.

- If the SAG instance can connect to the access point, the ID of the request is returned in this operation.
- If the SAG instance cannot connect to the access point, the ID of the request and corresponding error messages are returned in this operation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ProbeAccessPointNetworkQuality	The operation that you want to perform. Set the value to **ProbeAccessPointNetworkQuality**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
SmartAGId	String	Yes	sag-6z21oj0vjjrx6s****	The ID of the SAG instance.
AccessPointIds.N	Integer	Yes	110	The ID of the access point. You can enter multiple access point IDs at a time. Valid values of N are **1** to **5**. You can call the ListAccessPoints operation to query the IDs of access points in a specified region.

Response parameters

Parameter	Type	Example	Description
RequestId	String	E26DBAAE-A796-4A48-98B4-B45AFCD1F299	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ProbeAccessPointNetworkQuality
&RegionId=cn-shanghai
&SmartAGId=sag-6z21oj0vjjrx6s****
&AccessPointIds=[110]
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ProbeAccessPointNetworkQualityResponse>
    <RequestId>E26DBAAE-A796-4A48-98B4-B45AFCD1F299</RequestId>
</ProbeAccessPointNetworkQualityResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "E26DBAAE-A796-4A48-98B4-B45AFCD1F299"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ProbeFrequencyTooHigh	The probe frequency is too high. Please try again later.	The error message returned because the frequency of tests is too high. Try again later.

For a list of error codes, visit the API Error Center.

5.60. UpdateSmartAGAccessPoint

Switches the access points of a Smart Access Gateway (SAG) instance.

Prerequisites

Before you call this operation, you can call the ListAccessPoints operation to view the switchable access points of the SAG instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
Action	String	No	UpdateSmartAGAccessPoint	The operation that you want to perform. Set the value to **UpdateSmartAGAccessPoint**.
AccessPointId	Integer	Yes	10	The ID of the access point to which you want to switch.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-far8v6owtdxlua****	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	E26DBAAE-A796-4A48-98B4-B45AFCD1F299	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=UpdateSmartAGAccessPoint
&AccessPointId=10
&RegionId=cn-shanghai
&SmartAGId=sag-far8v6owtdxlua****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateSmartAGAccessPointResponse>
  <RequestId>0EEFB09A-208D-4063-A839-F49F3367A073</RequestId>
</UpdateSmartAGAccessPointResponse>
```

`JSON` format

```
{
 "RequestId": "0EEFB09A-208D-4063-A839-F49F3367A073"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupportFeature	The specified SAG Software instance does not support this feature.	The error message returned because the SAG instance does not support this feature.

HttpCode	Error code	Error message	Description
400	SAG.NoActive	The specified SAG instance has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.
403	NotBoundCCN	The specified smart access gateway has not bound CCN; please bind CCN first.	The error message returned because the specified SAG instance is not associated with a Cloud Connect Network (CCN) instance. Associate the SAG instance with a CCN instance first.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
500	Upgrading	The specified Smart Access Gateway is being upgraded.	The error message returned because the SAG device is being upgraded. Try again later.

For a list of error codes, visit the API Error Center.

5.61. ListSmartAGByAccessPoint

Queries information about Smart Access Gateway (SAG) instances within specific access points in a specific region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListSmartAGByAccessPoint	The operation that you want to perform. Set the value to **ListSmartAGByAccessPoint**.
AccessPointId	Integer	Yes	238	The ID of the access point.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed. A region contains one or more access points. You can call the ListAccessPoints operation to query access points in a specific region.
PageSize	Integer	No	5	The number of entries to return on each page. Default value: **10**. Maximum value: **50** .

Parameter	Type	Required	Example	Description
PageNumber	Integer	No	1	The number of the page to return. Pages start from page 1. Default value: **1**.
SmartAGStatus	String	No	Active	The status of the SAG instance. Valid values: • **Active**: The SAG device is connected to Alibaba Cloud. • **offline**: The SAG device is disconnected from Alibaba Cloud.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AE203140-5D0C-4B4D-88D1-D008206B3A01	The ID of the request.
SmartAccessGateways	Array of SmartAccessGateway		The information about the SAG instance.
AssociatedCcnId	String	ccn-l42qf3vpvb****	The ID of the Cloud Connect Network (CCN) instance with which the SAG instance is associated.
HardwareVersion	String	sag-1000	The model of the SAG device with which the SAG instance is associated. Valid values: • **sag-1000**. • **sag-100WM**.
RoutingStrategy	String	static	The method that the SAG instance uses to synchronize Alibaba Cloud-facing routes. Valid values: • **static**: static routing. • **dynamic**: dynamic routing.
SmartAGDescription	String	test	The description of the SAG instance.
SmartAGId	String	sag-p86e06z4geaji1****	The ID of the SAG instance.
SmartAGName	String	test	The name of the SAG instance.
SmartAGStatus	String	Active	The status of the SAG instance. Valid values: • **Active**: The SAG device is connected to Alibaba Cloud. • **offline**: The SAG device is disconnected from Alibaba Cloud.
TotalCount	Integer	16	The number of SAG instances within the access point.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=ListSmartAGByAccessPoint
&AccessPointId=238
&RegionId=cn-shanghai
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ListSmartAGByAccessPointResponse>
  <TotalCount>16</TotalCount>
  <RequestId>ABEE83F9-610C-4EFF-9C02-32EB269BD34E</RequestId>
  <SmartAccessGateways>
        <SmartAGName>Cainiao-staging</SmartAGName>
        <SmartAGStatus>Offline</SmartAGStatus>
        <RoutingStrategy>static</RoutingStrategy>
        <AssociatedCcnId>ccn-l42qf3vpvb0hmq****</AssociatedCcnId>
        <SmartAGId>sag-71sh7ww783pdes****</SmartAGId>
        <HardwareVersion>sag-100wm</HardwareVersion>
  </SmartAccessGateways>
  <SmartAccessGateways>
        <SmartAGStatus>Offline</SmartAGStatus>
        <RoutingStrategy>static</RoutingStrategy>
        <AssociatedCcnId>ccn-3dmy71fs4tz69d****</AssociatedCcnId>
        <SmartAGId>sag-7b7gnu4dn6x9gz****</SmartAGId>
        <HardwareVersion>sag-1000</HardwareVersion>
  </SmartAccessGateways>
</ListSmartAGByAccessPointResponse>
```

`JSON` format

```
{
 "TotalCount": 16,
 "RequestId": "ABEE83F9-610C-4EFF-9C02-32EB269BD34E",
 "SmartAccessGateways": [
  {
   "SmartAGName": "Cainiao-staging",
   "SmartAGStatus": "Offline",
   "RoutingStrategy": "static",
   "AssociatedCcnId": "ccn-l42qf3vpvb0hmq****",
   "SmartAGId": "sag-71sh7ww783pdes****",
   "HardwareVersion": "sag-100wm"
  },
  {
   "SmartAGStatus": "Offline",
   "RoutingStrategy": "static",
   "AssociatedCcnId": "ccn-3dmy71fs4tz69d****",
   "SmartAGId": "sag-7b7gnu4dn6x9gz****",
   "HardwareVersion": "sag-1000"
  }
 ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.62. DescribeSmartAccessGatewayAttribute

Queries information about a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSmartAccessGatewayAttribute	The operation that you want to perform. Set the value to **DescribeSmartAccessGatewayAttribute**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
SmartAGId	String	Yes	sag-6z21oj0vjjrx****	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
UpBandwidth4G	Integer	3	The maximum upstream bandwidth of 4G network connections established by the SAG device. Unit: Mbit/s.
Description	String	testdesc	The description of the SAG instance.
EndTime	Long	1628265600000	The timestamp when the SAG instance expires.
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the SAG instance belongs.
UserCount	Integer	3	The number of client accounts for the SAG instance.
AssociatedCcnName	String	testname	The ID of the Cloud Connect Network (CCN) instance with which the SAG instance is associated.
MaxBandwidth	String	50 M	The maximum bandwidth value of the SAG instance. Unit: Mbit/s.
VpnStatus	String	down	The status of the VPN connection. Valid values: • **up**: normal • **down**: abnormal
BoxControllerIp	String	112.XX.XX.25	The public IP address of the active SAG device.
UpBandwidthWan	Integer	4	The maximum upstream bandwidth of network connections established on the WAN port of the SAG device. Unit: Mbit/s.

Parameter	Type	Example	Description
CidrBlock	String	10.0.9.0/24	The private CIDR block of the destination network with which the on-premises network or client needs to communicate.
QosIds	Array of String	qos-yca8p30w1jcrbt****	The ID of the quality of service (QoS) policy associated with the SAG instance.
Devices	Array of Device		The information about the SAG device.
Device			
SerialNumber	String	sage6gsdllbid****"	The serial number of the SAG device.
HaState	String	Active	Indicates whether the SAG device is an active or standby device. Valid values: • **Active**: an active device • **Standby**: a standby device
SecretKey	String	+T4nV8xkS4****	The key of the SAG device.
DpiSignatureDbVersion	String	20201117_1_0-0.0.1	The version of the database that is used by the deep packet inspection (DPI) feature of the SAG device.
SoftwareVersion	String	2.3.0.0	The software version of the SAG device.
DistributeSkStatus	Integer	1	Indicates whether the key of the SAG device is activated. Valid values: • **1**: yes • **0**: no
MonitorVersion	String	0.1.11.17	The monitoring version of the SAG device.
HcState	String	online	The health check status of the SAG device. Valid values: • **online**: connected to Alibaba Cloud • **offline**: disconnected from Alibaba Cloud
Name	String	testname	The name of the SAG instance.
OptimizationType	Boolean	fec	The transmission optimization type of the SAG instance. After transmission optimization is enabled, the default value is **fec**.
IpsecStatus	String	up	The status of the IPsec-VPN connection. Valid values: • **up**: normal • **down**: abnormal

Parameter	Type	Example	Description
RoutingStrategy	String	static	The method that the SAG instance uses to advertise routes to Alibaba Cloud. • **static**: static routing • **dynamic**: dynamic routing
AssociatedCcnId	String	ccn-iz26o9zye6lhoo****	The ID of the Cloud Connect Network (CCN) instance with which the SAG instance is associated.
FlowLogIds	Array of String	fl-0vv40lyu2un5qh****	The ID of the flow log with which the SAG instance is associated.
SmartAGId	String	sag-6z21oj0vjjrx6s****	The ID of the SAG instance.
InstanceType	String	sag-vcpe	The type of the SAG instance. Valid values: • **sag-1000**: indicates an SAG CPE instance and the instance is associated with an SAG-1000 device. • **sag-10wm**: indicates an SAG CPE instance and the instance is associated with an SAG-100WM device. • **sag-software**: indicates an SAG app instance. • **sag-vcpe**: indicates an SAG vCPE instance.
ResellerUid	String	1688121212121212	The ID of the third-party reseller.
SecurityLockThreshold	Integer	3600	The time threshold. If the SAG device remains offline for the specified period of time, the SAG device is locked. Unit: seconds.
Status	String	Active	The status of the SAG instance. Valid values: • **Ordered**: to be shipped • **Delivered**: shipped • **Received**: activated • **Unconfirmed**: pending confirmation • **Active**: available • **Offline**: offline • **Arrearage**: locked due to overdue payments
RequestId	String	F02D092B-A0B7-4BA1-BCA7-014B953C5DC7	The ID of the request.
CreateTime	Long	1622617250000	The timestamp when the SAG instance was created.
DataPlan	Long	5	The data transfer plan of the SAG instance. Unit: GB. **Note** Each client account has a data transfer plan free of charge for 5 GB each month.

Parameter	Type	Example	Description
EnableOptimization	Boolean	false	Indicates whether the transmission optimization feature is enabled. • **true**: enabled • **false**: disabled You can submit a ticket to enable the transmission optimization feature.
City	String	cn-shanghai	The ID of the city where the SAG device is deployed.
ResellerInstanceId	String	sag-v0fkpk4akfz5******	The ID of the instance provided by the third-party reseller.
SerialNumber	String	sage6gsdllbidl****,sage6nniq3d****	The serial number of the SAG device.
BackupBoxControllerIp	String	112.XX.XX.27	The public IP address of the standby SAG device.
TrafficMasterSn	String	sage6nniq3d****	The serial number of the active SAG device.
AccessPointId	String	238	The ID of the access point for the SAG instance.
Links	Array of Link		The list of connections between the on-premises network and Alibaba Cloud.
Link			
HealthCheckTargetIp	String	100.XX.XX.144	The IP address of the virtual border router (VBR). **Note** When you create a health check for an Express Connect circuit, you must specify the IP address of the VBR as the destination address.
EndTime	Long	1628265600000	The timestamp when the connection expires.
Status	String	Active	The status of the network connection. The status of the bandwidth connection: • **Ordered**: to be shipped • **Delivered**: shipped • **Offline**: offline • **Active**: available • **Arrearage**: locked due to overdue payments The status of the Express Connect circuit: • **normal**: normal • **arrears**: payments overdue

Parameter	Type	Example	Description
Type	String	ccn	The type of the network connection. Valid values: • **ccn**: indicates that the on-premises network is connected to Alibaba Cloud through CCN. • **vbr**: indicates that the on-premises network is connected to Alibaba Cloud through VBRs and Express Connect circuits.
Bandwidth	String	50 M	The bandwidth value of the connection. Unit: Mbit/s.
RelateInstanceRegionId	String	cn-shanghai	The region ID of the instance with which the connection is associated.
RelateInstanceId	String	ccn-iz26o9zye6lho****	The ID of the instance associated with the connection.
InstanceId	String	sag-6z21oj0vjjrx****	The ID of the product instance.
CommodityType	String	smartag	The product type of bandwidth. Valid values: • **bandwidth**: indicates that the SAG instance and bandwidth resources can be separately purchased. • **smartag**: indicates that the SAG instance and bandwidth resources must be purchased together.
AclIds	Array of String	acl-9p14e8y1red6kv****	The ID of the access control list (ACL) with which the SAG instance is associated.
ApplicationBandwidthPackageId	String	abwp-7963l7iqnquyj3****	The ID of the bandwidth plan for application acceleration that is associated with the SAG instance.
ApplicationBandwidthPackageName	String	testname	The name of the bandwidth plan for application acceleration that is associated with the SAG instance.
AccelerateBandwidth	Long	1	The maximum bandwidth value for application acceleration. Unit: Mbit/s.
ApplicationBandwidthPackageBussinessStatus	String	Normal	The status of the bandwidth plan for application acceleration. • **Abnormal**: abnormal • **Normal**: normal
ApplicationBandwidthPackageOperationLocks	Object		Indicates whether the bandwidth plan is locked.
LockType	String	FinancialLocked	The type of the reason why the bandwidth plan is locked. The value is set to **FinancialLocked**.
LockReason	String	Message	The reason why the bandwidth plan is locked.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeSmartAccessGatewayAttribute
&RegionId=cn-shanghai
&SmartAGId=sag-6z21oj0vjjrx****
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeSmartAccessGatewayAttributeResponse>
    <EndTime>1628265600000</EndTime>
    <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
    <AssociatedCcnName>zxtest-202106</AssociatedCcnName>
    <MaxBandwidth>50M</MaxBandwidth>
    <VpnStatus>down</VpnStatus>
    <BoxControllerIp>112.XX.XX.25</BoxControllerIp>
    <CidrBlock>10.0.9.0/24</CidrBlock>
    <Devices>
        <Device>
            <MonitorVersion>2.0.3.0</MonitorVersion>
            <SecretKey>+T4nV8xkS4****</SecretKey>
            <SoftwareVersion>2.3.0.0</SoftwareVersion>
            <SerialNumber>sage6gsdllbid****</SerialNumber>
            <HaState>Active</HaState>
            <DpiSignatureDbVersion>20201117_1_0-0.0.1</DpiSignatureDbVersion>
            <DistributeSkStatus>1</DistributeSkStatus>
            <HcState>online</HcState>
        </Device>
        <Device>
            <MonitorVersion>2.0.3.0</MonitorVersion>
            <SecretKey>X8Sfepq8qIn****</SecretKey>
            <SoftwareVersion>2.3.0.0</SoftwareVersion>
            <SerialNumber>sage6nniq3dqa****</SerialNumber>
            <HaState>Standby</HaState>
            <DpiSignatureDbVersion>20201117_1_0-0.0.1</DpiSignatureDbVersion>
            <DistributeSkStatus>0</DistributeSkStatus>
            <HcState>online</HcState>
        </Device>
    </Devices>
    <Name>zxtest-202106</Name>
    <IpsecStatus>up</IpsecStatus>
    <RoutingStrategy>static</RoutingStrategy>
    <AssociatedCcnId>ccn-iz26o9zye6lhoo****</AssociatedCcnId>
    <SmartAGId>sag-6z21oj0vjjrx6s****</SmartAGId>
    <InstanceType>sag-vcpe</InstanceType>
    <SecurityLockThreshold>0</SecurityLockThreshold>
    <Status>Active</Status>
    <RequestId>F02D092B-A0B7-4BA1-BCA7-014B953C5DC7</RequestId>
    <CreateTime>1622617250000</CreateTime>
    <SerialNumber>sage6gsdllbidl****,sage6nniq3d****</SerialNumber>
    <BackupBoxControllerIp>112.XX.XX.27</BackupBoxControllerIp>
    <TrafficMasterSn>sage6nniq3d****</TrafficMasterSn>
    <AccessPointId>238</AccessPointId>
    <Links>
        <Link>
            <Status>Active</Status>
            <Type>ccn</Type>
            <EndTime>1628265600000</EndTime>
            <InstanceId>sag-6z21oj0vjjrx****</InstanceId>
            <RelateInstanceId>ccn-iz26o9zye6lho****</RelateInstanceId>
            <Bandwidth>50M</Bandwidth>
            <CommodityType>smartag</CommodityType>
        </Link>
    </Links>
</DescribeSmartAccessGatewayAttributeResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "EndTime" : 1628265600000,
  "ResourceGroupId" : "rg-acfm2iu4fnc****",
  "AssociatedCcnName" : "zxtest-202106",
  "MaxBandwidth" : "50M",
  "VpnStatus" : "down",
  "BoxControllerIp" : "112.XX.XX.25",
  "CidrBlock" : "10.0.9.0/24",
  "Devices" : {
    "Device" : [ {
      "MonitorVersion" : "2.0.3.0",
      "SecretKey" : "+T4nV8xkS4****",
      "SoftwareVersion" : "2.3.0.0",
      "SerialNumber" : "sage6gsdllbid****",
      "HaState" : "Active",
      "DpiSignatureDbVersion" : "20201117_1_0-0.0.1",
      "DistributeSkStatus" : 1,
      "HcState" : "online"
    }, {
      "MonitorVersion" : "2.0.3.0",
      "SecretKey" : "X8Sfepq8qIn****",
      "SoftwareVersion" : "2.3.0.0",
      "SerialNumber" : "sage6nniq3dqa****",
      "HaState" : "Standby",
      "DpiSignatureDbVersion" : "20201117_1_0-0.0.1",
      "DistributeSkStatus" : 0,
      "HcState" : "online"
    } ]
  },
  "Name" : "zxtest-202106",
  "IpsecStatus" : "up",
  "RoutingStrategy" : "static",
  "AssociatedCcnId" : "ccn-iz26o9zye6lhoo****",
  "SmartAGId" : "sag-6z21oj0vjjrx6s****",
  "InstanceType" : "sag-vcpe",
  "SecurityLockThreshold" : 0,
  "Status" : "Active",
  "RequestId" : "F02D092B-A0B7-4BA1-BCA7-014B953C5DC7",
  "CreateTime" : 1622617250000,
  "SerialNumber" : "sage6gsdllbidl****,sage6nniq3d****",
  "BackupBoxControllerIp" : "112.XX.XX.27",
  "TrafficMasterSn" : "sage6nniq3d****",
  "AccessPointId" : 238,
  "Links" : {
    "Link" : [ {
      "Status" : "Active",
      "Type" : "ccn",
      "EndTime" : 1628265600000,
      "InstanceId" : "sag-6z21oj0vjjrx****",
      "RelateInstanceId" : "ccn-iz26o9zye6lho****",
      "Bandwidth" : "50M",
      "CommodityType" : "smartag"
    } ]
  }
}
```

Error codes

HttpCode	Error code	Error message	Description

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

5.63. MoveResourceGroup

Moves Smart Access Gateway (SAG) resources from one resource group to another.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	MoveResourceGroup	The operation that you want to perform. Set the value to **MoveResourceGroup**.
ResourceId	String	Yes	fl-g5w9ty0z36****	The ID of the resource.
ResourceType	String	Yes	flowlog	The type of the resource. Valid values: • **smartag**: an SAG CPE or SAG vCPE instance • **smartag_s**: an SAG app instance • **acl**: an access control list (ACL) • **flowlog**: a flow log • **qos**: a quality of service (QoS) policy • **ccn**: a Cloud Connect Network (CCN) instance • **abwp**: a bandwidth plan for application acceleration
NewResourceGroupId	String	Yes	rg-acfm2iu4fnc****	The ID of the new resource group. You can log on to the Resource Management console to view resource group IDs.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed. You can call the DescribeRegions operation to query the most recent region list.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6668829E-B261-4038-9EC6-0A2C57A14916	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=MoveResourceGroup
&ResourceId=fl-g5w9ty0z36****
&ResourceType=flowlog
&NewResourceGroupId=rg-acfm2iu4fnc****
&RegionId=cn-shanghai
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<MoveResourceGroupResponse>
    <RequestId>6668829E-B261-4038-9EC6-0A2C57A14916</RequestId>
</MoveResourceGroupResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "6668829E-B261-4038-9EC6-0A2C57A14916"
}
```

Error codes

For a list of error codes, visit the API Error Center.

5.64. DiscribeSmartAccessGatewayDiagnosisReport

Generates a diagnosis report for a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DiscribeSmartAccessGatewayDiagnosisReport	The operation that you want to perform. Set the value to **DiscribeSmartAccessGatewayDiagnosisReport**.
SmartAGId	String	Yes	sag-1um5x5nwhilymw****	The ID of the SAG instance.
SmartAGSn	String	Yes	sage62x022502****	The serial number of the SAG device.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed. You can call the DescribeRegions operation to query the most recent region list.

Response parameters

Parameter	Type	Example	Description
RequestId	String	D7D6E3AB-D41A-42E3-8D4E-97B145F4B7C3	The ID of the request.
DiagnoseResult	Object		The diagnosis report of the SAG device.
Percent	Integer	100	The completion percentage of the diagnosis report.
SN	String	sag42c3****	The serial number of the SAG device.
DiagnoseId	String	dia-sag42c3t703trh02olv5rf*****	The ID of the diagnosis.
State	String	finished	The diagnosis status. Valid values: • **processing**: The SAG device is being diagnosed. • **finished**: The SAG device is diagnosed. • **failed**: The system failed to diagnose the SAG device. • **error**: A diagnostic error occurred. • **upload_to_sls_fail**: The system failed to upload the diagnosis report.
UserLevel	String	user	The type of user that initiated the diagnostics. The value is set to **user**.
BoxVersion	String	2.1.0	The version of the SAG device.
InstanceId	String	sag-0nntegltw6z4b***	The ID of the SAG instance.
BoxType	String	sag-1000	The model of the SAG device. • **sag-1000** • **sag-100WM**
MonitorVersion	String	2.0.2.9	The version of the monitoring feature that is used by the SAG device.
FinishedNumber	Integer	15	The number of items that are diagnosed.
Details	Array of Detail		The list of diagnoses that are returned.
Type	String	config	The type of the diagnosis. Valid values: • **config**: SAG configuration • **internet**: quality of connections to the Internet • **biz**: service quality
Items	Array of Item		The list of items diagnosed.

Parameter	Type	Example	Description
Type	String	config	The type of the item. Valid values: • **config**: SAG configuration • **internet**: quality of connections to the Internet • **biz**: service quality
EndTime	Long	1602741570596	The timestamp when the system finishes diagnosing the item.
StartTime	Long	1602741570567	The timestamp when the system starts to diagnose the item.
CN	Object		The diagnosis report in Chinese.
Advice	Array of String	Check the Express Connect circuit, and perform operations on the Management page.	The suggestion for the diagnosis.
ItemName	String	Dedicated connection port check	The name of the item.
ItemLevel	String	INFO	The diagnosis level of the item. Valid values: • **ERROR**: indicates that the item has an issue that may affect your services. We recommend that you handle the issue at the earliest opportunity. • **WARNING**: indicates that the item has an issue. You can handle the issue based on your business requirements. • **INFO**: indicates that the item is working as expected. No additional operation is required.
ItemType	String	Config	The type of the item. Valid values: • **Config**: **SAG configuration** • **Service**: **service quality** • **Internet**: **quality of connections to the Internet**
Details	Array of String	Port 4 has an abnormal Express Connect circuit or lacks a port IP address.	The diagnosis.
ItemName	String	eccConfigCheck	The name of the item, which is the unique identifier of the item.
EN	Object		The diagnosis report in English.
Advice	Array of String	Check the physical connections to all Express connect ports and configure these ports on the 'Physical connection port' page.	The suggestion for the diagnosis.

Parameter	Type	Example	Description
ItemName	String	Express Connect Port Configuration	The name of the item.
ItemLevel	String	ERROR	The diagnosis level of the item. Valid values: • **ERROR**: indicates that the item has an issue that may affect your services. We recommend that you handle the issue at the earliest opportunity. • **WARNING**: indicates that the item has an issue. You can handle the issue based on your business requirements. • **INFO**: indicates that the item is working as expected. No additional operation is required.
ItemType	String	Config	The type of the item. Valid values: • **Config**: SAG configuration • **Service**: service quality • **Internet**: quality of connections to the Internet
Details	Array of String	The connection states of all Express connect ports are down and no IP address is specified for these ports: Port4	The diagnosis.
Level	String	error	The diagnosis level of the item. Valid values: • **error**: severe • **warning**: warning • **info**: normal
Statistics	Object		The information about items of each diagnosis level for the current diagnosis type.
Warning	Integer	2	The number of items of the **WARNING** level.
Error	Integer	5	The number of items of the **ERROR** level.
Total	Integer	10	The total number of items for the current diagnosis type.
Info	Integer	3	The number of items of the **INFO** level.
Uid	String	1688000000000000	The user ID (UID) of the Alibaba Cloud account to which the SAG instance belongs.
EndTime	Integer	160274157	The timestamp when the system finishes diagnosing the item.
StartTime	Integer	160274157	The timestamp when the system starts to diagnose the item.

Parameter	Type	Example	Description
StoreType	String	both	The storage type. The value is set to **both**, which indicates that the data is stored in the SAG device and Log Service.
ReportSLSSuccess	Integer	0	The status of the diagnosis report to be uploaded to Log Service. • **0**: The system failed to upload the report. • **1**: The system has uploaded the report to Log Service.
TotalNumber	Integer	15	The total number of entries returned.
Level	Object		The diagnosis level.
Configuration	String	info	The diagnosis level of the SAG configuration.
Total	String	error	The overall diagnosis level. • **error**: severe • **warning**: warning • **info**: normal
Biz	String	warning	The diagnosis level of the service quality.
Statistics	Object		The overall diagnosis level.
Warning	Integer	3	The number of items of the **WARNING** level.
Error	Integer	2	The number of items of the **ERROR** level.
Total	Integer	10	The total number of items.
Info	Integer	5	The number of items of the **INFO** level.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DiscribeSmartAccessGatewayDiagnosisReport
&RegionId=cn-shanghai
&SmartAGId=sag-1um5x5nwhilymw****
&SmartAGSn=sage62x022502****
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DiscribeSmartAccessGatewayDiagnosisReportResponse>
```

```
<DescribeSmartAccessGatewayDiagnosisReportResponse>
    <RequestId>1BC73F52-5104-4E77-8F4C-80E5B1ED9D21</RequestId>
    <DiagnoseResult>
        <EndTime>1602741571690</EndTime>
        <Percent>100</Percent>
        <UserLevel>user</UserLevel>
        <InstanceId>sag-0nntegltw6z4b****</InstanceId>
        <FinishedNumber>5</FinishedNumber>
        <StartTime>1602741570554</StartTime>
        <BoxType>sag-1000</BoxType>
        <Statistics>
            <Warning>0</Warning>
            <Total>5</Total>
            <Error>1</Error>
            <Info>4</Info>
        </Statistics>
        <StoreType>both</StoreType>
        <MonitorVersion>2.0.2.9</MonitorVersion>
        <UId>1688000000000000</UId>
        <ReportSLSSuccess>0</ReportSLSSuccess>
        <Details>
            <Type>config</Type>
            <Items>
                <Type>config</Type>
                <EndTime>1602741570596</EndTime>
                <StartTime>1602741570567</StartTime>
                <ItemName>eccConfigCheck</ItemName>
                <EN>
                    <ItemLevel>ERROR</ItemLevel>
                    <Details>The connection states of all Express connect ports are down and no IP address is
specified for these ports: </Details>
                    <Details>Port4</Details>
                    <ItemType>Config</ItemType>
                    <ItemName>Express Connect Port Configuration</ItemName>
                    <Advice>Check the physical connections to all Express connect ports and configure these po
rts on the 'Physical connection port' page.</Advice>
                </EN>
                <Level>error</Level>
                <CN>
                    <ItemLevel>ERROR</ItemLevel>
                    <Details>All dedicated connection ports have abnormal Express Connect circuits or lack por
t IP addresses:</Details>
                    <Details>Port 4</Details>
                    <ItemType>Configuration</ItemType>
                    <ItemName>Dedicated connection port check</ItemName>
                    <Advice>Check the Express Connect circuit, and perform operations on the Management page.<
/Advice>
                </CN>
            </Items>
            <Items>
                <Type>config</Type>
                <EndTime>1602741570600</EndTime>
                <StartTime>1602741570587</StartTime>
                <ItemName>haConfigCheck</ItemName>
                <EN>
                    <ItemLevel>INFO</ItemLevel>
                    <Details>The configurations for HA are correct and the state of the peer is normal.</Detai
ls>
                    <ItemType>Config</ItemType>
                    <ItemName>HA Configuration</ItemName>
                    <Advice>N/A</Advice>
                </EN>
                <Level>info</Level>
                <CN>
                    <ItemLevel>INFO</ItemLevel>
```

```
                    <Details>The high availability (HA) feature is correctly configured and the peer is workin
g as expected</Details>
                    <ItemType>Configuration</ItemType>
                    <ItemName>HA configuration check</ItemName>
                    <Advice>None</Advice>
                </CN>
            </Items>
            <Statistics>
                <Warning>0</Warning>
                <Total>2</Total>
                <Error>1</Error>
                <Info>1</Info>
            </Statistics>
        </Details>
        <Details>
            <Type>biz</Type>
            <Items>
                <Type>biz</Type>
                <EndTime>1602741570641</EndTime>
                <StartTime>1602741570610</StartTime>
                <ItemName>ctrlConnState</ItemName>
                <EN>
                    <ItemLevel>INFO</ItemLevel>
                    <Details>The state of the TCP connection to the management console is normal.</Details>
                    <ItemType>Service</ItemType>
                    <ItemName>Management Console Connection</ItemName>
                    <Advice>N/A</Advice>
                </EN>
                <Level>info</Level>
                <CN>
                    <ItemLevel>INFO</ItemLevel>
                    <Details>The device is connected to Alibaba Cloud over TCP</Details>
                    <ItemType>Service</ItemType>
                    <ItemName>Connection check between the device and Alibaba Cloud over TCP</ItemName>
                    <Advice>None</Advice>
                </CN>
            </Items>
            <Items>
                <Type>biz</Type>
                <EndTime>1602741570829</EndTime>
                <StartTime>1602741570803</StartTime>
                <ItemName>agwTunnelQuality</ItemName>
                <EN>
                    <ItemLevel>INFO</ItemLevel>
                    <Details>The tunnel quality is high:</Details>
                    <Details>The packet loss rate for the primary IPSec tunnel is 0.00% and the latency is 1.2
5 ms.</Details>
                    <Details>The packet loss rate for the backup IPSec tunnel is 0.00% and the latency is 1.40
ms.</Details>
                    <ItemType>Service</ItemType>
                    <ItemName>Tunnel Quality</ItemName>
                    <Advice>N/A</Advice>
                </EN>
                <Level>info</Level>
                <CN>
                    <ItemLevel>INFO</ItemLevel>
                    <Details>The tunnels are working as expected:</Details>
                    <Details>The packet loss rate of the primary IPsec tunnel is 0.00% and the latency is 1.25
milliseconds</Details>
                    <Details>The packet loss rate of the secondary IPsec tunnel is 0.00% and the latency is 1.
40 milliseconds</Details>
                    <ItemType>Service</ItemType>
                    <ItemName>Tunnel quality check</ItemName>
                    <Advice>None</Advice>
                </CN>
```

```
            </Items>
            <Statistics>
                <Warning>0</Warning>
                <Total>2</Total>
                <Error>0</Error>
                <Info>2</Info>
            </Statistics>
        </Details>
        <Details>
            <Type>internet</Type>
            <Items>
                <Type>internet</Type>
                <EndTime>1602741570637</EndTime>
                <StartTime>1602741570607</StartTime>
                <ItemName>dnsResolve</ItemName>
                <EN>
                    <ItemLevel>INFO</ItemLevel>
                    <Details>The domain names are resolved.</Details>
                    <ItemType>Internet</ItemType>
                    <ItemName>DNS Resolution</ItemName>
                    <Advice>N/A</Advice>
                </EN>
                <Level>info</Level>
                <CN>
                    <ItemLevel>INFO</ItemLevel>
                    <Details>DNS resolution is working as expected</Details>
                    <ItemType>Internet</ItemType>
                    <ItemName>DNS resolution check</ItemName>
                    <Advice>None</Advice>
                </CN>
            </Items>
            <Statistics>
                <Warning>1</Warning>
                <Total>1</Total>
                <Error>0</Error>
                <Info>1</Info>
            </Statistics>
        </Details>
        <State>finished</State>
        <DiagnoseId>dia-sag42c3t703frrpjsoezf********</DiagnoseId>
        <TotalNumber>5</TotalNumber>
        <Level>
            <Biz>info</Biz>
            <Configuration>error</Configuration>
            <Total>error</Total>
        </Level>
        <BoxVersion>2.1.0</BoxVersion>
        <SN>sag42c3****</SN>
    </DiagnoseResult>
</DiscribeSmartAccessGatewayDiagnosisReportResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "1BC73F52-5104-4E77-8F4C-80E5B1ED9D21",
  "DiagnoseResult" : {
    "EndTime" : 1602741571690,
    "Percent" : 100,
    "UserLevel" : "user",
    "InstanceId" : "sag-0nntegllltw6z4b****",
    "FinishedNumber" : 5,
    "StartTime" : 1602741570554,
    "BoxType" : "sag-1000",
```

```
    "BoxType" : "sag-1000",
    "Statistics" : {
      "Warning" : 0,
      "Total" : 5,
      "Error" : 1,
      "Info" : 4
    },
    "StoreType" : "both",
    "MonitorVersion" : "2.0.2.9",
    "UId" : "1688000000000000",
    "ReportSLSSuccess" : 0,
    "Details" : [ {
      "Type" : "config",
      "Items" : [ {
        "Type" : "config",
        "EndTime" : 1602741570596,
        "StartTime" : 1602741570567,
        "ItemName" : "eccConfigCheck",
        "EN" : {
          "ItemLevel" : "ERROR",
          "Details" : [ "The connection states of all Express connect ports are down and no IP address is spec
ified for these ports: ", "Port4" ],
          "ItemType" : "Config",
          "ItemName" : "Express Connect Port Configuration",
          "Advice" : [ "Check the physical connections to all Express connect ports and configure these ports
on the 'Physical connection port' page." ]
        },
        "Level" : "error",
        "CN" : {
          "ItemLevel" : "ERROR",
          "Details" : [ "All dedicated connection ports have abnormal Express Connect circuits or lack port IP
addresses:", "Port 4" ],
          "ItemType" : "Configuration",
          "ItemName" : "Dedicated connection port check",
          "Advice" : [ "Check the Express Connect circuit, and perform operations on the Management page" ]
        }
      }, {
        "Type" : "config",
        "EndTime" : 1602741570600,
        "StartTime" : 1602741570587,
        "ItemName" : "haConfigCheck",
        "EN" : {
          "ItemLevel" : "INFO",
          "Details" : [ "The configurations for HA are correct and the state of the peer is normal." ],
          "ItemType" : "Config",
          "ItemName" : "HA Configuration",
          "Advice" : [ "N/A" ]
        },
        "Level" : "info",
        "CN" : {
          "ItemLevel" : "INFO",
          "Details" : [ "The HA configuration is correct and the peer is working as expected" ],
          "ItemType" : "Configuration",
          "ItemName" : "HA configuration check",
          "Advice" : [ "None" ]
        }
      } ],
      "Statistics" : {
        "Warning" : 0,
        "Total" : 2,
        "Error" : 1,
        "Info" : 1
      }
    }, {
      "Type" : "biz",
```

```
      "Items" : [ {
        "Type" : "biz",
        "EndTime" : 1602741570641,
        "StartTime" : 1602741570610,
        "ItemName" : "ctrlConnState",
        "EN" : {
          "ItemLevel" : "INFO",
          "Details" : [ "The state of the TCP connection to the management console is normal." ],
          "ItemType" : "Service",
          "ItemName" : "Management Console Connection",
          "Advice" : [ "N/A" ]
        },
        "Level" : "info",
        "CN" : {
          "ItemLevel" : "INFO",
          "Details" : [ "The device is connected to Alibaba Cloud over TCP" ],
          "ItemType" : "Service",
          "ItemName" : "Connection check between the device and Alibaba Cloud over TCP",
          "Advice" : [ "None" ]
        }
      }, {
        "Type" : "biz",
        "EndTime" : 1602741570829,
        "StartTime" : 1602741570803,
        "ItemName" : "agwTunnelQuality",
        "EN" : {
          "ItemLevel" : "INFO",
          "Details" : [ "The tunnel quality is high:", "The packet loss rate for the primary IPSec tunnel is 0
.00% and the latency is 1.25 ms.", "The packet loss rate for the backup IPSec tunnel is 0.00% and the latency
is 1.40 ms." ],
          "ItemType" : "Service",
          "ItemName" : "Tunnel Quality",
          "Advice" : [ "N/A" ]
        },
        "Level" : "info",
        "CN" : {
          "ItemLevel" : "INFO",
          "Details" : [ "The tunnels are working as expected:", "The packet loss rate of the primary IPsec tun
nel is 0.00% and the latency is 1.25 milliseconds", "The packet loss rate of the primary IPsec tunnel is 0.00%
and the latency is 1.40 milliseconds" ],
          "ItemType" : "Service",
          "ItemName" : "Tunnel quality check",
          "Advice" : [ "None" ]
        }
      } ],
      "Statistics" : {
        "Warning" : 0,
        "Total" : 2,
        "Error" : 0,
        "Info" : 2
      }
    }, {
      "Type" : "internet",
      "Items" : [ {
        "Type" : "internet",
        "EndTime" : 1602741570637,
        "StartTime" : 1602741570607,
        "ItemName" : "dnsResolve",
        "EN" : {
          "ItemLevel" : "INFO",
          "Details" : [ "The domain names are resolved." ],
          "ItemType" : "Internet",
          "ItemName" : "DNS Resolution",
          "Advice" : [ "N/A" ]
        },
```

```
        "Level" : "info",
        "CN" : {
          "ItemLevel" : "INFO",
          "Details" : [ "DNS resolution is working as expected" ],
          "ItemType" : "Internet",
          "ItemName" : "DNS resolution check",
          "Advice" : [ "None" ]
        }
      } ],
      "Statistics" : {
        "Warning" : 1,
        "Total" : 1,
        "Error" : 0,
        "Info" : 1
      }
    } ],
    "State" : "finished",
    "DiagnoseId" : "dia-sag42c3t703frrpjsoezf********",
    "TotalNumber" : 5,
    "Level" : {
      "Biz" : "info",
      "Configuration" : "error",
      "Total" : "error"
    },
    "BoxVersion" : "2.1.0",
    "SN" : "sag42c3****"
  }
}
```


Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.

For a list of error codes, visit the API Error Center.

6.Cloud Connect Network (CCN)

6.1. DeleteCloudConnectNetwork

You can call this operation to delete a Cloud Connect Network (CCN) instance.

> **Note** Make sure that the CCN instance to be deleted is not associated with a Smart Access Gateway (SAG) or Cloud Enterprise Network (CEN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteCloudConnectNetwork	The operation that you want to perform. Set the value to **DeleteCloudConnectNetwork**.
CcnId	String	Yes	ccn-bxuau4ezctts2*****	The ID of the CCN instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the CCN instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	0BAAF2B9-88B8-4574-BDBE-102A90EE3FEE	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DeleteCloudConnectNetwork
&CcnId=ccn-bxuau4ezctts2*****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteCloudConnectNetworkResponse>
    <RequestId>0BAAF2B9-88B8-4574-BDBE-102A90EE3FEE</RequestId>
</DeleteCloudConnectNetworkResponse>
```

`JSON` format

```
{
   "RequestId":"0BAAF2B9-88B8-4574-BDBE-102A90EE3FEE"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a request parameter is not set. Check the request parameters.
403	InvalidId.CCN	Invalid cloud connect network id.	The error message returned because the specified CCN instance ID is invalid.
403	AlreadyBound.CEN	This instance has been bound, please unbind first.	The error message returned because the specified CCN instance is bound with a CEN instance. Unbind the CEN instance from the CCN instance.
403	AlreadyBound.SMARTAG	This instance has been bound, please unbind smart access gateway first.	The error message returned because the specified CCN instance is bound with an SAG instance. Unbind the SAG instance from the CCN instance.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the resource.

For a list of error codes, visit the API Error Center.

6.2. GetCloudConnectNetworkUseLimit

You can call this operation to query the maximum number of Cloud Connect Network (CCN) instances that the current account can create in the specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CCN instances are deployed.
Action	String	No	GetCloudConnectNetworkUseLimit	The operation that you want to perform. Set the value to **GetCloudConnectNetworkUseLimit** .

Response parameters

Parameter	Type	Example	Description
RequestId	String	BCD04867-56C3-43DC-8FEF-923EFB8B56DA	The ID of the request.
TotalAmount	Integer	10	The maximum number of CCN instances that the current account can create in the specified region.
UsedAmount	Integer	6	The number of CCN instances that you have created.

Parameter	Type	Example	Description

Examples

Sample requests

```
https://smartag.cn-shanghai.aliyuncs.com/?Action=GetCloudConnectNetworkUseLimit
&RegionId=cn-shanghai
&CommonParameters
```

Sample success responses

`XML` format

```
<GetCloudConnectNetworkUseLimitResponse>
    <RequestId>BCD04867-56C3-43DC-8FEF-923EFB8B56DA</RequestId>
    <TotalAmount>10</TotalAmount>
    <UsedAmount>6</UsedAmount>
</GetCloudConnectNetworkUseLimitResponse>
```

`JSON` format

```
{
 "RequestId":"BCD04867-56C3-43DC-8FEF-923EFB8B56DA",
 "TotalAmount":10,
 "UsedAmount":6
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the resource.

For a list of error codes, visit the API Error Center.

6.3. CreateCloudConnectNetwork

Creates a Cloud Connect Network (CCN) instance.

Background information

CCN is a matrix consisting of Alibaba Cloud distributed access gateways. It is an important component of Smart Access Gateway (SAG). After you associate an SAG instance with a CCN instance, the SAG instance connects the private networks associated with Alibaba Cloud. For more information, see Overview of Cloud Connect Network.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-shanghai	The ID of the region where the CCN instance is deployed.
Name	String	No	ccnname	The name of the CCN instance. The name must be 2 to 100 characters in length and can contain letters, digits, periods (.), underscores (_),and hyphens (-). The name must start with a letter.
Description	String	No	ccndesc	The description of the CCN instance. The description must be 2 to 128 characters in length and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.
Action	String	Yes	CreateCloudConnectNetwork	The operation that you want to perform. Set the value to **CreateCloudConnectNetwork**.
CidrBlock	String	No	172.XX.XX.0/24	The private CIDR block.
SnatCidrBlock	String	No	172.XX.XX.0/25	The private CIDR block used for Source Network Address Translation (SNAT).

Response parameters

Parameter	Type	Example	Description
Status	String	Active	The status of the CCN instance. Valid values: • **Active**: indicates the CNN instance running as expected. • **Pending**: indicates the CCN instance is to be created.
Description	String	ccndesc	The description about the CCN instance.
RequestId	String	C48E8EB2-37A4-495B-A95C-29CA1FD26C82	The ID of the request.
CcnId	String	ccn-l9340rlu5ens*****	The ID of the CCN instance.
CidrBlock	String	172.XX.XX.0/24	The private CIDR block.
SnatCidrBlock	String	172.XX.XX.0/25	The private CIDR block used for SNAT.
Name	String	ccnname	The name of the CCN instance.

Parameter	Type	Example	Description
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the CCN instance belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?RegionId=cn-shanghai
&Name=ccnname
&Description=ccndesc
&Action=CreateCloudConnectNetwork
&CidrBlock=172.XX.XX.0/24
&SnatCidrBlock=172.XX.XX.0/25
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateCloudConnectNetworkResponse>
<Status>Active</Status>
<RequestId>C48E8EB2-37A4-495B-A95C-29CA1FD26C82</RequestId>
<ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
<CcnId>ccn-tcw17az0542xcj****</CcnId>
<Name>zxtest</Name>
</CreateCloudConnectNetworkResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "Status" : "Active",
  "RequestId" : "C48E8EB2-37A4-495B-A95C-29CA1FD26C82",
  "ResourceGroupId" : "rg-acfm2iu4fnc****",
  "CcnId" : "ccn-tcw17az0542xcj****",
  "Name" : "zxtest"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	CCN.CidrAmountLimit	The maximum number of CCN CIDR blocks is exceeded.	The error message returned because the number of CIDR blocks of the CCN instance exceeds the upper limit.
400	CCN.CidrEmpty	You must specify the CCN CIDR block.	The error message returned because the CIDR block of the CCN instance is not specified.
400	CCN.InvalidCidr	The specified CCN CIDR block is invalid.	The error message returned because the specified CIDR block of the CCN instance is invalid.

HttpCode	Error code	Error message	Description
400	CCN.InvalidSnatCidr	The SNAT CIDR block of CCN is invalid.	The error message returned because the specified SNAT CIDR block of the CCN instance is invalid.
400	CCN.SnatCidrConflict	The specified SNAT CIDR block is invalid.	The error message returned because the specified SNAT CIDR block is invalid.
403	InvalidDescription	Description not valid.	The error message returned because the length of the description exceeds the upper limit.
403	InvalidName	Name not valid.	The error message returned because the name of the CCN instance is invalid.
403	CcnAmountLimit	The CCNs you created has reached the limit, you can raise the limit by application.	The error message returned because the number of created CCN instances have reached the upper limit. To increase the quota, submit a ticket.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.

For a list of error codes, visit the API Error Center.

6.4. ModifyCloudConnectNetwork

You can call this operation to modify the configurations of a Cloud Connect Network (CCN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyCloudConnectNetwork	The operation that you want to perform. Set the values to **ModifyCloudConnectNetwork** .
CcnId	String	Yes	ccn-l9340rlu5ens*****	The ID of the CCN instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CCN instance is deployed.
Name	String	No	The name of the CCN instance	The name of the CCN instance. The name must be 2 to 128 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter or Chinese character, but cannot start with `http://` or `https://` .

Parameter	Type	Required	Example	Description
Description	String	No	CCN description	The description of the CCN instance. The description must be 2 to 256 characters in length. It must start with a letter or Chinese character, but cannot start with `http://` or `https://`.
CidrBlock	String	No	10.10.10.0/24	The CIDR block of the private network.
InterworkingStatus	String	No	enable	Specifies whether to allow the SAG instance associated with the CCN instance to communicate with each other. • **enable**: enables the communication. • **disable**: disables the communication.

Response parameters

Parameter	Type	Example	Description
RequestId	String	0BAAF2B9-88B8-4574-BDBE-102A90EE3FEE	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyCloudConnectNetwork
&CcnId=ccn-19340rlu5ens*****
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyCloudConnectNetworkResponse>
    <RequestId>0BAAF2B9-88B8-4574-BDBE-102A90EE3FEE</RequestId>
</ModifyCloudConnectNetworkResponse>
```

`JSON` format

```
{
   "RequestId":"0BAAF2B9-88B8-4574-BDBE-102A90EE3FEE"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a request parameter is not set. Check the request parameters.
403	InvalidId.CCN	Invalid cloud connect network id.	The error message returned because the specified CCN instance ID is invalid.

HttpCode	Error code	Error message	Description
403	UpdateError.CCN	Update cloud connect network error.	The error message returned because the system failed to update the CCN instance.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the resource.
400	CCN.CidrEmpty	You must specify the CCN CIDR block.	The error message returned because the CIDR block of the CCN instance is not specified.
400	CCN.CidrAmountLimit	The maximum number of CCN CIDR blocks is exceeded.	The error message returned because the number of CIDR blocks of the CCN instance exceeds the upper limit.
400	CCN.CidrInUse	The specified CCN CIDR block is being used.	The error message returned because the specified CIDR block of the CCN instance is already used.
400	CCN.InvalidCidr	The specified CCN CIDR block is invalid.	The error message returned because the specified CIDR block of the CCN instance is invalid.
400	CCN.InvalidId	You must specify the CCN instance ID.	The error message returned because the specified CCN instance ID does not exist.
400	CCN.InvalidSnatCidr	The SNAT CIDR block of CCN is invalid.	The error message returned because the specified SNAT CIDR block of the CCN instance is invalid.
400	CCN.SnatCidrConflict	The specified SNAT CIDR block is invalid.	The error message returned because the specified SNAT CIDR block overlaps with another one.
400	CCN.SnatCidrInUse	The SNAT CIDR block of the CCN is being used and cannot be changed.	The error message returned because the specified SNAT CIDR block is being used and cannot be modified.
400	CCN.SnatCidrNoConfig	You must configure the SNAT CIDR block of the CCN.	The error message returned because the SNAT CIDR block of the CCN instance is not specified.
400	SAG.CcnCidrNoConfig	You must configure the CIDR block of CCN.	The error message returned because the CIDR block of the SAG instance associated with the CCN instance is not specified.
400	CCN.InvalidInterworkingStatus	The specified connection status is invalid. Specify the connection status to enable or disable.	The error message returned because the specified communication status between the SAG instance and the CCN instance is invalid.

For a list of error codes, visit the API Error Center.

6.5. DescribeCloudConnectNetworks

Queries Cloud Connect Network (CCN) instances that you have created in a specific region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region where the CCN instances are deployed.
Name	String	No	ccnname	The name of the CCN instance. The name must be 2 to 100 characters in length and can contain letters, digits, periods (.), underscores (_),and hyphens (-). The name must start with a letter.
CcnId	String	No	ccn-l9340rlu5enst*****	The ID of the CCN instance.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Maximum value: **50**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
Action	String	Yes	DescribeCloudConnectNetworks	The operation that you want to perform. Set the value to **DescribeCloudConnectNetworks**.
Tag.N.Key	String	No	test	The key of the tag that is bound to the CCN instance.
Tag.N.Value	String	No	test	The value of the tag that is bound to the CCN instance.

Response parameters

Parameter	Type	Example	Description
CloudConnectNetworks	Array of CloudConnectNetwork		The list of CCN instances.
CloudConnectNetwork			
CreateTime	Long	1523618639000	The timestamp when the CCN instance was created.
AssociatedCenOwnerId	String	168800000000****	The account ID of the Cloud Enterprise Network (CEN) instance to which the CCN instance is attached.
AssociatedCloudBoxCount	String	1	The number of Smart Access Gateway (SAG) instances that are associated with the CCN instance.

Parameter	Type	Example	Description
Tags	Array of Tag		The list of tags.
Tag			
Key	String	test	The key of the tag that is bound to the CCN instance.
Value	String	test	The value of the tag that is bound to the CCN instance.
InterworkingStatus	String	enable	Indicates whether the SAG instances that are associated with the same CCN instance communicate with each other. • **enable**: allows SAG instances that are associated with the same CCN instance to communicate with each other. • **disable**: does not allow SAG instances that are associated with the same CCN instance to communicate with each other.
CcnId	String	ccn-l9340rlu5enst******	The ID of the CCN instance.
AvailableCloudBoxCount	String	1	The number of SAG instances in the **Available** state that are associated with the CCN instance.
CidrBlock	String	10.10.10.0/24	The private CIDR block.
Description	String	ccndesc	The description of the CCN instance.
SnatCidrBlock	String	10.10.10.0/25	The CIDR block that is used in Source Network Address Translation (SNAT).
AssociatedCenId	String	cen-0jtu0bcbika5b5****	The ID of the CEN instance to which the CCN instance is attached.
Name	String	ccnname	The name of the CCN instance.
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the CCN instance belongs.
TotalCount	Integer	3	The total number of the CCN instances.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	3F2A0B80-D6D1-4764-8D77-38067DBBA345	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.

Examples

Sample requests

```
http(s)://[Endpoint]/?RegionId=cn-shanghai
&Name=ccnname
&CcnId=ccn-19340rlu5enst*****
&PageSize=10
&PageNumber=1
&Action=DescribeCloudConnectNetworks
&Tag=[{"Key":"test","Value":"test"}]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeCloudConnectNetworksResponse>
    <CloudConnectNetworks>
        <CloudConnectNetwork>
            <IsDefault>false</IsDefault>
            <InterworkingStatus>enable</InterworkingStatus>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <CreateTime>1604385674000</CreateTime>
            <CcnId>ccn-iz26o9zye6lhoo****</CcnId>
            <AvailableCloudBoxCount>1</AvailableCloudBoxCount>
            <AssociatedCenOwnerId>1688000000000000</AssociatedCenOwnerId>
            <AssociatedCenId>cen-9z595pdzhmi3jz****</AssociatedCenId>
            <AssociatedCloudBoxCount>1</AssociatedCloudBoxCount>
            <Name>zxtest-202106</Name>
        </CloudConnectNetwork>
        <CloudConnectNetwork>
            <IsDefault>false</IsDefault>
            <InterworkingStatus>enable</InterworkingStatus>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <CreateTime>1594619327000</CreateTime>
            <CcnId>ccn-frx6evdue4daza****</CcnId>
            <AvailableCloudBoxCount>3</AvailableCloudBoxCount>
            <AssociatedCenOwnerId>1688000000000000</AssociatedCenOwnerId>
            <AssociatedCenId>cen-ol0xptl3edqc8i****</AssociatedCenId>
            <AssociatedCloudBoxCount>3</AssociatedCloudBoxCount>
            <Name>zxtest-OSS</Name>
        </CloudConnectNetwork>
        <CloudConnectNetwork>
            <IsDefault>false</IsDefault>
            <InterworkingStatus>enable</InterworkingStatus>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <CreateTime>1589866291000</CreateTime>
            <CcnId>ccn-wf0kz6wohe03h2****</CcnId>
            <AvailableCloudBoxCount>1</AvailableCloudBoxCount>
            <AssociatedCenOwnerId>1688000000000000</AssociatedCenOwnerId>
            <CidrBlock>192.168.10.0/24</CidrBlock>
            <AssociatedCenId>cen-8z69wtwqel33lq****</AssociatedCenId>
            <AssociatedCloudBoxCount>1</AssociatedCloudBoxCount>
            <Name>zxtest</Name>
        </CloudConnectNetwork>
    </CloudConnectNetworks>
    <TotalCount>3</TotalCount>
    <PageSize>10</PageSize>
    <RequestId>7DA93FE9-D008-49FB-8D9B-186F509EA307</RequestId>
    <PageNumber>1</PageNumber>
</DescribeCloudConnectNetworksResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "CloudConnectNetworks" : {
    "CloudConnectNetwork" : [ {
      "IsDefault" : false,
      "InterworkingStatus" : "enable",
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "CreateTime" : 1604385674000,
      "CcnId" : "ccn-iz26o9zye6lhoo****",
      "AvailableCloudBoxCount" : 1,
      "AssociatedCenOwnerId" : 1688000000000000,
      "AssociatedCenId" : "cen-9z595pdzhmi3jz****",
      "AssociatedCloudBoxCount" : 1,
      "Name" : "zxtest-202106"
    }, {
      "IsDefault" : false,
      "InterworkingStatus" : "enable",
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "CreateTime" : 1594619327000,
      "CcnId" : "ccn-frx6evdue4daza****",
      "AvailableCloudBoxCount" : 3,
      "AssociatedCenOwnerId" : 1688000000000000,
      "AssociatedCenId" : "cen-ol0xptl3edqc8i****",
      "AssociatedCloudBoxCount" : 3,
      "Name" : "zxtest-OSS"
    }, {
      "IsDefault" : false,
      "InterworkingStatus" : "enable",
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "CreateTime" : 1589866291000,
      "CcnId" : "ccn-wf0kz6wohe03h2****",
      "AvailableCloudBoxCount" : 1,
      "AssociatedCenOwnerId" : 1688000000000000,
      "CidrBlock" : "192.168.10.0/24",
      "AssociatedCenId" : "cen-8z69wtwqel33lq****",
      "AssociatedCloudBoxCount" : 1,
      "Name" : "zxtest"
    } ]
  },
  "TotalCount" : 3,
  "PageSize" : 10,
  "RequestId" : "7DA93FE9-D008-49FB-8D9B-186F509EA307",
  "PageNumber" : 1
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTagKey	The specified tag key is invalid.	The error message returned because the tag key is invalid.
400	InvalidTagValue	The specified tag value is invalid.	The error message returned because the tag value is invalid.
400	SizeLimitExceeded.TagNum	The maximum number of tags is exceeded.	The error message returned because the number of tags exceeds the upper limit.

HttpCode	Error code	Error message	Description
400	SizeLimitExceeded.ResourceId	The maximum number of resource IDs is exceeded.	The error message returned because the number of resource IDs exceeds the upper limit.
400	Forbidden.TagKey.Duplicated	The specified tag key already exists.	The error message returned because a tag key value overlaps with another.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.

For a list of error codes, visit the API Error Center.

6.6. GrantInstanceToCbn

Authorizes a Cloud Enterprise Network (CEN) instance to communicate with a Cloud Connect Network (CCN) instance that is under another Alibaba Cloud account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	GrantInstanceToCbn	The operation that you want to perform. Set the value to **GrantInstanceToCbn**.
CcnInstanceId	String	Yes	ccn-n2935s1mnwv8i*****	The ID of the CCN instance.
CenInstanceId	String	Yes	cen-7qthudw0ll6jm*****	The ID of the CEN instance.
CenUid	Long	Yes	123456789	The user ID (UID) of the Alibaba Cloud account to which the Cloud Enter Network (CEN) instance belongs.
RegionId	String	Yes	cn-shanghai	The ID of the region where the CCN instance is deployed.

Parameter	Type	Required	Example	Description
GrantTrafficService	Boolean	No	true	Specifies whether to grant the CEN instance permissions to manage network traffic from the CCN instance. Valid values: • **true**: grants permissions. • **false**: does not grant permissions. This is the default value. **Note** If you set the value to true and the SAG instance connected to the CCN instance has the secure rerouting feature enabled, you cannot revoke the permissions.

Response parameters

Parameter	Type	Example	Description
RequestId	String	22840034-ADE9-41D8-A5DC-A7CF435CEE75	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=GrantInstanceToCbn
&CcnInstanceId=ccn-n2935s1mnwv8i*****
&CenInstanceId=cen-7qthudw0ll6jm*****
&CenUid=123456789
&RegionId=cn-shanghai
&<Common request parameters>
```

Sample success responses

`XML` format

```
<GrantInstanceToCbnResponse>
  <RequestId>22840034-ADE9-41D8-A5DC-A7CF435CEE75</RequestId>
</GrantInstanceToCbnResponse>
```

`JSON` format

```
{
 "RequestId": "22840034-ADE9-41D8-A5DC-A7CF435CEE75"
}
```

Error codes

For a list of error codes, visit the API Error Center.

6.7. RevokeInstanceFromCbn

You can call this operation to revoke the authorization of a Cloud Enterprise Network (CEN) instance to a Cloud Connect Network (CCN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
CcnInstanceId	String	Yes	ccn-n2935s1mnwv8i*****	The ID of the CCN instance.
CenInstanceId	String	Yes	cen-7qthudw0ll6jm*****	The ID of the CEN instance.
RegionId	String	Yes	cn-shanghai	The ID of the region where the CCN instance is deployed.
Action	String	No	RevokeInstanceFromCbn	The operation that you want to perform. Set the value to **RevokeInstanceFromCbn**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	07D73949-2508-4169-8C64-7CCDB33871C4	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=RevokeInstanceFromCbn
&CcnInstanceId=ccn-n2935s1mnwv8i*****
&CenInstanceId=cen-7qthudw0ll6jm*****
&RegionId=cn-shanghai
&<Common request parameters>
```

Sample success responses

`XML` format

```
<RevokeInstanceFromCbnResponse>
   <RequestId>07D73949-2508-4169-8C64-7CCDB33871C4</RequestId>
</RevokeInstanceFromCbnResponse>
```

`JSON` format

```
{
 "RequestId":"07D73949-2508-4169-8C64-7CCDB33871C4"
}
```

Error codes

For a list of error codes, visit the API Error Center.

6.8. DescribeGrantRules

You can call this operation to query rules that authorize a Cloud Connect Network (CCN) instance to communicate with Cloud Enterprise Network (CEN) instances under other Alibaba Cloud accounts.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeGrantRules	The operation that you want to perform. Set the value to**DescribeGrantRules**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the CCN instance is deployed.
AssociatedCcnId	String	No	ccn-n2935s1mnwv8i*****	The ID of the CCN instance.
PageSize	Integer	No	10	The number of entries to return on each page. Default value:**10**. Maximum value:**50**.
PageNumber	Integer	No	1	The number of the page to return. Pages start from page 1. Default value:**1**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	FA579C2D-84A0-4BA1-B9C3-1E5A3B15F1B6	The ID of the request.
TotalCount	Integer	1	The total number of entries returned.
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned on each page.
GrantRules	Array		The authorization list.
GrantRuleId	String	18313265-d988-406c-965d-3e110ff*****	The ID of the authorization rule.
CenUid	Long	213213	The ID of the CEN account.
CcnUid	Long	213213	The UID of the Alibaba Cloud account that owns the CCN instance.
CenInstanceId	String	cen-0jtu0bcbika5b5****	The ID of the CEN instance.
CcnInstanceId	String	ccn-n2935s1mnwv8i*****	The ID of the CCN instance.

Parameter	Type	Example	Description
GmtCreate	Long	1563439920000	The time when the ACL rule was created. It is a long type timestamp. When timestamps are assigned the same priority, the timestamp with the smallest value prevails.
GmtModified	Long	1563439920000	The time when the ACL rule was last modified. It is a long type timestamp. When timestamps are assigned the same priority, the timestamp with the smallest value prevails.
RegionId	String	cn-shanghai	The ID of the region where the CCN instance is deployed.

Examples

Sample requests

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

Sample success responses

`XML` format

```
<DescribeGrantRulesResponse>
      <PageNumber>1</PageNumber>
      <GrantRules>
            <GrantRule>
                  <GrantRuleId>18313265-d988-406c-965d-3e110ff*****</GrantRuleId>
                  <CenUid>213213</CenUid>
                  <CcnInstanceId>ccn-n2935s1mnwv8i*****</CcnInstanceId>
                  <CenInstanceId>cen-0jtu0bcbika5b5****</CenInstanceId>
                  <RegionId>cn-shanghai</RegionId>
                  <GmtCreate>1563439920000</GmtCreate>
                  <GmtModified>1563439920000</GmtModified>
            </GrantRule>
      </GrantRules>
      <TotalCount>1</TotalCount>
      <PageSize>10</PageSize>
      <RequestId>FA579C2D-84A0-4BA1-B9C3-1E5A3B15F1B6</RequestId>
</DescribeGrantRulesResponse>
```

`JSON` format

```
{
    "PageNumber": 1,
    "GrantRules": {
        "GrantRule": [
            {
                "GrantRuleId": "18313265-d988-406c-965d-3e110ff*****",
                "CenUid": 213213,
                "CcnInstanceId": "ccn-n2935s1mnwv8i*****",
                "CenInstanceId": "cen-0jtu0bcbika5b5****",
                "RegionId": "cn-shanghai",
                "GmtCreate": 1563439920000,
                "GmtModified": 1563439920000
            }
        ]
    },
    "TotalCount": 1,
    "PageSize": 10,
    "RequestId": "FA579C2D-84A0-4BA1-B9C3-1E5A3B15F1B6"
}
```


Error codes

For a list of error codes, visit the API Error Center.

7.Access control

7.1. DescribeACLs

Queries access control lists (ACLs) in a specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeACLs	The operation that you want to perform. Set the value to **DescribeACLs**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the ACL is deployed.
AclIds	String	No	acl-xhwhyuo43l*******	The ID of the ACL. • If you want to query multiple ACL instances at the same time, separate the ACL IDs with commas (,). • If you do not specify this parameter, all ACLs in the specified region are queried.
Name	String	No	test	The name of the ACL. The name must be 2 to 100 characters in length and can contain letters, digits, periods (.), underscores (_),and hyphens (-). The name must start with a letter.
PageSize	Integer	No	10	The number of entries to return on each page. Maximum value: **50**. Default value: **10**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	455	The total number of ACLs.
PageSize	Integer	3	The number of entries returned per page.
RequestId	String	660F303F-C88E-4026-BC6A-FC24B78FD7EA	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.

Parameter	Type	Example	Description
Acls	Array of Acl		The list of ACLs.
Acl			
SagCount	String	0	The number of SAG instances associated with the ACL.
AclId	String	acl-ohlexqptfhy*******	The ID of the ACL.
Name	String	test	The name of the ACL.
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the ACL belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeACLs
&RegionId=cn-shanghai
&AclIds=acl-xhwhyuo43l*******
&Name=test
&PageSize=10
&PageNumber=1
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeACLsResponse>
    <TotalCount>455</TotalCount>
    <PageSize>3</PageSize>
    <RequestId>660F303F-C88E-4026-BC6A-FC24B78FD7EA</RequestId>
    <PageNumber>1</PageNumber>
    <Acls>
        <Acl>
            <SagCount>0</SagCount>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <AclId>acl-rsds2pk8gxcqce****</AclId>
            <Name>http</Name>
        </Acl>
        <Acl>
            <SagCount>0</SagCount>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <AclId>acl-o6yol7zowii5n2****</AclId>
            <Name>zxtest</Name>
        </Acl>
        <Acl>
            <SagCount>0</SagCount>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <AclId>acl-cl8gkzvldyxayo****</AclId>
            <Name>test-name-bvt-te</Name>
        </Acl>
    </Acls>
</DescribeACLsResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 455,
  "PageSize" : 3,
  "RequestId" : "660F303F-C88E-4026-BC6A-FC24B78FD7EA",
  "PageNumber" : 1,
  "Acls" : {
    "Acl" : [ {
      "SagCount" : 0,
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "AclId" : "acl-rsds2pk8gxcqce****",
      "Name" : "http"
    }, {
      "SagCount" : 0,
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "AclId" : "acl-o6yol7zowii5n2****",
      "Name" : "zxtest"
    }, {
      "SagCount" : 0,
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "AclId" : "acl-cl8gkzvldyxayo****",
      "Name" : "test-name-bvt-te"
    } ]
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a parameter is set to an invalid value.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.

For a list of error codes, visit the API Error Center.

7.2. CreateACL

Creates an access control list (ACL).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateACL	The operation that you want to perform. Set the value to **CreateACL**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the ACL is deployed.
Name	String	Yes	test	The name of the ACL. The name must be 2 to 128 characters in length and can contain letters, digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter.

Response parameters

Parameter	Type	Example	Description
RequestId	String	EE837E9F-BD50-4C2B-9E47-260F9D848480	The ID of the request.
AclId	String	acl-o6yol7zowii5n2****	The ID of the ACL.
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the ACL belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateACL
&RegionId=cn-shanghai
&Name=test
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateACLResponse>
    <RequestId>EE837E9F-BD50-4C2B-9E47-260F9D848480</RequestId>
    <AclId>acl-o6yol7zowii5n2****</AclId>
    <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
</CreateACLResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "EE837E9F-BD50-4C2B-9E47-260F9D848480",
  "AclId" : "acl-o6yol7zowii5n2****",
  "ResourceGroupId" : "rg-acfm2iu4fnc****"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InvalidName	Name not valid.	The error message returned because the name of the ACL is invalid.
403	AclAmountLimit	No more ACL can be created. You can open a ticket to increase the quota of ACLs.	The error message returned because the number of created ACLs have reached the upper limit. To increase the quota, submit a ticket.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.

For a list of error codes, visit the API Error Center.

7.3. ModifyACL

You can call this operation to modify the name of an access control list (ACL).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyACL	The operation that you want to perform. Set the value to **ModifyACL**.
AclId	String	Yes	acl-e30a66to95cs******	The ID of the ACL.
Name	String	Yes	test	The name of the ACL. The name must be 2 to 100 characters in length, and can contain digits, underscores (_), periods (.), and hyphens (-). It must start with a letter or Chinese character.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the ACL belongs.

Response parameters

Parameter	Type	Example	Description
RequestId	String	076FD0BE-67D5-4338-A2A1-C54DE7D78B16	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyACL
&AclId=acl-e30a66to95cs******
&Name=test
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyACLResponse>
   <RequestId>076FD0BE-67D5-4338-A2A1-C54DE7D78B16</RequestId>
</ModifyACLResponse>
```

`JSON` format

```
{
    "RequestId": "076FD0BE-67D5-4338-A2A1-C54DE7D78B16"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a request parameter is not set. Check the request parameters.

HttpCode	Error code	Error message	Description
403	InvalidName	Name not valid.	The error message returned because the specified ACL name is invalid.
403	InvalidId.ACL	The specified ACL ID is invalid.	The error message returned because the specified ACL ID is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.

For a list of error codes, visit the API Error Center.

7.4. DeleteACL

You can call this operation to delete an access control list (ACL).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteACL	The operation that you want to perform. Set the value to **DeleteACL**.
AclId	String	Yes	acl-ohlexqptfhy*******	The ID of the ACL.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the ACL belongs.

Response parameters

Parameter	Type	Example	Description
RequestId	String	00546174-2CE6-4587-9550-04B6A3313938	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteACL
&AclId=acl-ohlexqptfhy*******
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteACL>
   <RequestId>00546174-2CE6-4587-9550-04B6A3313938</RequestId>
</DeleteACL>
```

`JSON` format

```
{
    "RequestId": "00546174-2CE6-4587-9550-04B6A3313938"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a request parameter is not set. Check the request parameters.
403	InvalidId.ACL	The specified ACL ID is invalid.	The error message returned because the specified ACL ID is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the Smart Access Gateway (SAG) device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

7.5. AssociateACL

You can call this operation to associate an access control list (ACL) with a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	AssociateACL	The operation that you want to perform. Set the value to **AssociateACL**.
AclId	String	Yes	acl-ohlexqptfhy******	The ID of the ACL.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the ACL belongs.
SmartAGId	String	Yes	sag-4yr0p2xa6o3k*******	The ID of the SAG instance to be associated with the ACL.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C9A75915-0260-4335-851A-D866A7ED396C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=AssociateACL
&AclId=acl-ohlexqptfhy******
&RegionId=cn-hangzhou
&SmartAGId=sag-4yr0p2xa6o3k*******
&<Common request parameters>
```

Sample success responses

`XML` format

```
<AssociateACL>
   <RequestId>00546174-2CE6-4587-9550-04B6A3313938</RequestId>
</AssociateACL>
```

`JSON` format

```
{
 "RequestId": "C9A75915-0260-4335-851A-D866A7ED396C"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a request parameter is not set. Check the request parameters.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.
403	SmartAGAlreadyAssociateAcl	The specified smart access gateway has already been associated with the specified ACL.	The error message returned because the specified SAG instance is already associated with the specified ACL.

HttpCode	Error code	Error message	Description
403	AclPerSmartagAmountLimit	No more ACL can be associated with this smart access gateway.	The error message returned because the number of ACLs associated with the specified SAG instance exceeds the upper limit.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.
403	InvalidId.ACL	The specified ACL ID is invalid.	The error message returned because the specified ACL ID is invalid.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the SAG APP instance does not support ACLs.

For a list of error codes, visit the API Error Center.

7.6. DisassociateACL

You can call this operation to disassociate a Smart Access Gateway (SAG) instance from an access control list (ACL).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
AclId	String	Yes	acl-xhwhyuo43l0*******	The ID of the ACL.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the ACL belongs.
SmartAGId	String	Yes	sag-ke3kq4evpi8********	The ID of the SAG instance to be unbound from the ACL.
Action	String	No	DisassociateACL	The operation that you want to perform. Set the value to **DisassociateACL**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	B28A9AB3-05BD-4A88-AB6A-A555A0BF70C0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? AclId=acl-xhwhyuo43l0*******
&RegionId=cn-hangzhou
&SmartAGId=sag-ke3kq4evpi8********
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DisassociateACL>
   <RequestId>00546174-2CE6-4587-9550-04B6A3313938</RequestId>
    </DisassociateACL>
```

`JSON` format

```
{
 "RequestId":"B28A9AB3-05BD-4A88-AB6A-A555A0BF70C0"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a request parameter is not set. Check the request parameters.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The error message returned because the specified SAG instance ID is invalid.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.
403	InvalidId.ACL	The specified ACL ID is invalid.	The error message returned because the specified ACL ID is invalid.
403	SmartAGNotAssociateAcl	The specified smart access gateway is not associated with the specified ACL.	The error message returned because the specified SAG instance is not bound with the specified ACL.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.

For a list of error codes, visit the API Error Center.

7.7. AddACLRule

Creates an access control list (ACL) rule.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	AddACLRule	The operation that you want to perform. Set the value to **AddACLRule**.
AclId	String	Yes	acl-xhwhyuo43l0n*****	The ID of the ACL.
DestCidr	String	Yes	192.168.10.0/24	The range of the destination IP addresses. Set this parameter in CIDR notation. Example: 192.168.10.0/24.
DestPortRange	String	Yes	1/200	The range of the destination ports. Valid values: **-1** and **1** to **65535**. Set the destination port range in one of the following formats: 1/200 or 80/80. A value of -1/-1 indicates that all ports are available.
Direction	String	Yes	in	The direction in which the ACL rule is applied. Valid values: • **in**: The ACL rule controls inbound network traffic of the on-premises network that is associated with the SAG instance. • **out**: The ACL rule controls outbound network traffic of the on-premises network that is associated with the SAG instance.
IpProtocol	String	Yes	tcp	The protocol that is applied to the ACL rule. The supported protocols provided in this topic are for reference only. The actual protocols in the SAG console shall prevail. The protocol format is not case-sensitive.
Policy	String	Yes	accept	The action policy of the ACL rule. Valid values: • **accept**: allows the network traffic. • **drop**: blocks the network traffic.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the ACL is deployed.
SourceCidr	String	Yes	192.168.20.0/24	The range of the source IP addresses. Set this parameter in CIDR notation. Example: 192.168.1.0/24.
SourcePortRange	String	Yes	1/200	The range of the source ports. Valid values: **-1** and **1** to **65535**. Set the destination port range in one of the following formats: 1/200 or 80/80. A value of -1/-1 indicates that all ports are available.

Parameter	Type	Required	Example	Description
Description	String	No	test	The description of the ACL rule. The description must be **1 to 512** characters in length.
Priority	Integer	No	12	The priority of the ACL rule. A smaller value indicates a higher priority. If rules have the same priority, whichever applied to the SAG devices earlier takes effect. Valid values: **1 to 100**. Default value: **1**.
Type	String	No	LAN	The type of the ACL rule: Valid values: • **LAN**: The ACL rule controls traffic of private IP addresses. This is the default value. • **WAN**: The ACL rule controls traffic of public IP addresses.
Name	String	No	doctest	The name of the ACL rule. The name must be 2 to 100 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
DpiSignatureIds.N	RepeatList	No	1	The IDs of applications that the current ACL rule matches. You can call the ListDpiSignatures operation to query application IDs and information. Maximum value of N: **10**.
DpiGroupIds.N	RepeatList	No	20	The IDs of application groups that the current ACL rule matches. You can call the ListDpiGroups operation to query application group IDs and information. Maximum value of N: **10**.

Response parameters

Parameter	Type	Example	Description
AclId	String	acl-xhwhyuo43l0*******	The ID of the ACL.
AcrId	String	acr-c1hkd054qywi******	The ID of the ACL rule.
Description	String	test	The description of the ACL rule.
DestCidr	String	192.168.10.0/24	The range of the destination IP addresses. The value is returned in CIDR notation. Example: 192.168.10.0/24.

Parameter	Type	Example	Description
DestPortRange	String	1/65535	The range of the destination ports.
Direction	String	out	The direction in which the ACL rule is applied. Valid values: • **in**: The ACL rule controls inbound network traffic of the on-premises network that is associated with the SAG instance. • **out**: The ACL rule controls outbound network traffic of the on-premises network that is associated with the SAG instance.
DpiGroupIds	List	20	The IDs of application groups that the current ACL rule matches.
DpiSignatureIds	List	1	The IDs of applications that the current ACL rule matches.
GmtCreate	Long	1553766882689	The timestamp when the ACL rule was created. The timestamp is in Long format. If ACL rules have the same priority, the one with the smallest timestamp prevails.
IpProtocol	String	TCP	The protocol that is applied to the ACL rule.
Name	String	doctest	The name of the ACL rule.
Policy	String	drop	The action policy of the ACL rule. Valid values: • **accept**: allows the network traffic. • **drop**: blocks the network traffic.
Priority	Integer	1	The priority of the ACL rule. A smaller value represents a higher priority. If rules have the same priority, whichever applied to the SAG devices earlier takes effect.
RequestId	String	880F84CB-9B54-4413-A8A3-8832C82D1BC4	The ID of the request.
SourceCidr	String	192.168.20.0/24	The range of the source IP addresses. Set this parameter is CIDR notation. Example: 192.168.1.0/24.
SourcePortRange	String	1/65535	The range of the source ports.

Parameter	Type	Example	Description
Type	String	LAN	The type of the ACL rule. Valid values: • **LAN**: The ACL rule controls traffic of private IP addresses. • **WAN**: The ACL rule controls traffic of public IP addresses.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=AddACLRule
&AclId=acl-xhwhyuo43l0n*****
&DestCidr=192.168.10.0/24
&DestPortRange=1/200
&Direction=in
&IpProtocol=tcp
&Policy=accept
&RegionId=cn-hangzhou
&SourceCidr=192.168.20.0/24
&SourcePortRange=1/200
&<Common request parameters>
```

Sample success responses

`XML` format

```
<AddACLRuleResponse>
  <AcrId>acr-c1hkd054qywiw2****</AcrId>
  <Type>LAN</Type>
  <GmtCreate>1553766882689</GmtCreate>
  <Direction>out</Direction>
  <Priority>1</Priority>
  <Name>doctest</Name>
  <IpProtocol>TCP</IpProtocol>
  <SourceCidr>192.168.20.0/24</SourceCidr>
  <SourcePortRange>1/65535</SourcePortRange>
  <AclId>acl-xhwhyuo43l0n2b****</AclId>
  <Policy>drop</Policy>
  <RequestId>880F84CB-9B54-4413-A8A3-8832C82D1BC4</RequestId>
  <DestPortRange>1/65535</DestPortRange>
  <DestCidr>192.168.10.0/24</DestCidr>
</AddACLRuleResponse>
```

`JSON` format

```
{
    "AcrId": "acr-c1hkd054qywiw2****",
    "Type": "LAN",
    "GmtCreate": 1553766882689,
    "Direction": "out",
    "Priority": 1,
    "Name": "doctest",
    "IpProtocol": "TCP",
    "SourceCidr": "192.168.20.0/24",
    "SourcePortRange": "1/65535",
    "AclId": "acl-xhwhyuo43l0n2b****",
    "Policy": "drop",
    "RequestId": "880F84CB-9B54-4413-A8A3-8832C82D1BC4",
    "DestPortRange": "1/65535",
    "DestCidr": "192.168.10.0/24"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InvalidDescription	Description not valid.	The error message returned because the length of the description exceeds the upper limit.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because the value of the specified parameter is invalid.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.
403	NotSupportedProtocol	The specified protocol of the ACL rule is not supported.	The error message returned because the specified protocol type of the ACL rule is not supported.
403	InvalidId.ACL	The specified ACL ID is invalid.	The error message returned because the specified ACL ID is invalid.
403	InvalidPortRange	The specified port range is invalid.	The error message returned because the specified port range is invalid.
403	AcrPerAclAmountLimit	The maximum number of rules in an ACL is exceeded. You can open a ticket to increase the quota.	The error message returned because the number of created ACL rules in an ACL exceeds the upper limit. Submit a ticket to increase the quota.

HttpCode	Error code	Error message	Description
403	InternalError	An internal server error occurred.	The error code returned because an internal server error occurred.
400	ACL.NoSupportWanType	An SAG 1000 device does not support a WAN ACL.	The error code returned because an SAG-1000 device does not support a WAN ACL rule.
400	ACL.InvalidType	The specified ACL type is invalid.	The error code returned because the specified ACL rule type is invalid.

For a list of error codes, visit the API Error Center.

7.8. DeleteACLRule

You can call this operation to delete an access control list (ACL) rule.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteACLRule	The operation that you want to perform. Set the value to **DeleteACLRule**.
AclId	String	Yes	acl-xhwhyuo43l0n*****	The ID of the ACL to which the ACL rule to be deleted belongs.
AcrId	String	Yes	acr-c1hkd054qywiw******	The ID of the ACL rule to be deleted.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the ACL rule to be deleted belongs.

Response parameters

Parameter	Type	Example	Description
RequestId	String	39E71162-699A-4E02-AF0F-17621BA6AEF6	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteACLRule
&AclId=acl-xhwhyuo43l0n*****
&AcrId=acr-c1hkd054qywiw******
&RegionId=cn-hangzhou
&<Common request parameter>
```

Sample success responses

`XML` format

```
<DeleteACLRule>
      <RequestId>39E71162-699A-4E02-AF0F-17621BA6AEF6</RequestId>
</DeleteACLRule>
```

`JSON` format

```
{
    "RequestId": "39E71162-699A-4E02-AF0F-17621BA6AEF6"
}
```

Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error code returned because you do not have the permission to manage the resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error code returned because a request parameter is not set. Check the request parameters.
403	InvalidId.ACL	The specified ACL ID is invalid.	The error code returned because the specified ACL ID is invalid.
403	InvalidId.ACR	The specified ACL rule ID is invalid.	The error code returned because the specified ACL rule ID is invalid.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error code returned because the current version of the Smart Access Gateway (SAG) device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error code returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error code returned because the current version of the standby SAG device does not support this feature.
403	InternalError	An internal server error occurred.	The error code returned because an internal server error occurred.

For a list of error codes, visit the API Error Center.

7.9. ModifyACLRule

Modifies an access control list (ACL) rule.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyACLRule	The operation that you want to perform. Set the value to **ModifyACLRule**.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region where the ACL is deployed.
AclId	String	Yes	acl-xhwhyuo43l0n*******	The ID of the ACL.
AcrId	String	Yes	acr-u98qztgtgvhb********	The ID of the ACL rule. You can call the DescribeACLAttribute operation to query the ID of the ACL rule that is added to the ACL.
Description	String	No	test	The description of the ACL rule. The description must be **1** to **512** characters in length.
Direction	String	No	in	The direction of traffic in which the ACL rule is applied. Valid values: • **in**: The ACL rule controls inbound network traffic of the on-premises network that is associated with the SAG instance. • **out**: The ACL rule controls outbound network traffic of the on-premises network that is associated with the SAG instance.
SourceCidr	String	No	0.0.0.0/0	The range of source IP addresses. Set this parameter in CIDR notation. Example: 192.168.1.0/24.
DestCidr	String	No	0.0.0.0/0	The range of destination IP addresses. Specify the value of this parameter in CIDR notation. Example: 192.168.10.0/24.
IpProtocol	String	No	tcp	The protocol to use for the ACL rule. The protocols that are provided in this topic are for reference only. The protocols available in the SAG console may vary. The value of the parameter is not case-sensitive.
SourcePortRange	String	No	80/80	The range of source ports. Valid values: **1** to **65535** and **-1**. Examples: • 1/200: port range 1 to 200. • 80/80: port 80. • -1/-1: all ports.

Parameter	Type	Required	Example	Description
DestPortRange	String	No	80/80	The range of destination ports. Valid values: **1** to **65535** and **-1**. Examples: • 1/200: port range 1 to 200. • 80/80: port 80. • -1/-1: all ports.
Policy	String	No	accept	The action policy of the ACL rule. Valid values: • **accept**: allows the network traffic. • **drop**: blocks the network traffic.
Priority	Integer	No	2	The priority of the ACL rule. A smaller value specifies a higher priority. If multiple rules have the same priority, the rule that is applied earlier takes effect. Valid values: **1 to 100**. Default value: **1**.
Type	String	No	LAN	The type of the ACL rule: Default value: LAN. Valid values: • **LAN**: The ACL rule controls traffic of private IP addresses. • **WAN**: The ACL rule controls traffic of public IP addresses.
Name	String	No	doctest	The name of the ACL rule. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
DpiSignatureIds.N	String	No	1	ID of applications that match the ACL rule. You can call the ListDpiSignatures operation to query application IDs and information about the applications.
DpiGroupIds.N	String	No	20	ID of application groups that match the ACL rule. You can call the ListDpiGroups operation to query application group IDs and information about the application groups.

Response parameters

Parameter	Type	Example	Description
Policy	String	accept	The action policy of the ACL rule. • **accept**: allows the network traffic. • **drop**: blocks the network traffic.

Parameter	Type	Example	Description
Description	String	test	The description of the ACL rule.
RequestId	String	7F3DD2C1-0F6B-4575-9106-B2D50DF7A711	The ID of the request.
SourcePortRange	String	-1/-1	The range of source ports.
SourceCidr	String	0.0.0.0/0	The range of source IP addresses. Set this parameter in CIDR notation. Example: 192.168.1.0/24.
Priority	Integer	1	The priority of the ACL rule. A smaller value indicates a higher priority. If multiple rules have the same priority, the rule that is applied earlier takes effect.
AclId	String	acl-jdc7tir4fkplwr****	The ID of the ACL.
AcrId	String	acr-r8hezn2pi39s5a****	The ID of the ACL rule.
DestPortRange	String	-1/-1	The range of destination ports.
Direction	String	in	The direction of traffic in which the ACL rule is applied. Valid values: • **in**: The ACL rule controls inbound network traffic of the on-premises network that is associated with the SAG instance. • **out**: The ACL rule controls outbound network traffic of the on-premises network that is associated with the SAG instance.
DpiGroupIds	Array of String	20	The IDs of application groups that match the ACL rule.
Name	String	doctest	The name of the ACL rule.
GmtCreate	Long	1553777700000	The timestamp when the ACL rule was created. The timestamp is of the Long data type. If multiple ACL rules have the same priority, the rule with the earliest timestamp takes effect.
DestCidr	String	0.0.0.0/0	The range of destination IP addresses. Specify the value of this parameter in CIDR notation. Example: 192.168.10.0/24.
DpiSignatureIds	Array of String	1	The IDs of applications that match the ACL rule.
IpProtocol	String	ALL	The protocol to use for the ACL rule.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyACLRule
&RegionId=cn-hangzhou
&AclId=acl-xhwhyuo43l0n*******
&AcrId=acr-u98qztgtgvhb********
&Description=test
&Direction=in
&SourceCidr=0.0.0.0/0
&DestCidr=0.0.0.0/0
&IpProtocol=tcp
&SourcePortRange=80/80
&DestPortRange=80/80
&Policy=accept
&Priority=2
&Type=LAN
&Name=doctest
&DpiSignatureIds=["1"]
&DpiGroupIds=["20"]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ModifyACLRuleResponse>
    <Policy>accept</Policy>
    <RequestId>7F3DD2C1-0F6B-4575-9106-B2D50DF7A711</RequestId>
    <SourcePortRange>-1/-1</SourcePortRange>
    <SourceCidr>0.0.0.0/0</SourceCidr>
    <Priority>1</Priority>
    <AclId>acl-jdc7tir4fkplwr****</AclId>
    <AcrId>acr-r8hezn2pi39s5a****</AcrId>
    <DestPortRange>-1/-1</DestPortRange>
    <Direction>in</Direction>
    <GmtCreate>1608887742000</GmtCreate>
    <DestCidr>0.0.0.0/0</DestCidr>
    <IpProtocol>ALL</IpProtocol>
</ModifyACLRuleResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "Policy" : "accept",
  "RequestId" : "7F3DD2C1-0F6B-4575-9106-B2D50DF7A711",
  "SourcePortRange" : "-1/-1",
  "SourceCidr" : "0.0.0.0/0",
  "Priority" : 1,
  "AclId" : "acl-jdc7tir4fkplwr****",
  "AcrId" : "acr-r8hezn2pi39s5a****",
  "DestPortRange" : "-1/-1",
  "Direction" : "in",
  "GmtCreate" : 1608887742000,
  "DestCidr" : "0.0.0.0/0",
  "IpProtocol" : "ALL"
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	ACL.NoSupportWanType	An SAG 1000 device does not support a WAN ACL.	The error message returned because an SAG-1000 device does not support a WAN ACL rule.
400	ACL.InvalidType	The specified ACL type is invalid.	The error message returned because the specified ACL rule type is invalid.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because no values are specified for one or more required parameters. Check whether you have specified values for all required parameters.
403	InvalidDescription	Description not valid.	The error message returned because the length of the description exceeds the upper limit.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a parameter is set to an invalid value.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.
403	NotSupportedProtocol	The specified protocol of the ACL rule is not supported.	The error message returned because the protocol type that you specified for the ACL rule is not supported.
403	InvalidId.ACL	The specified ACL ID is invalid.	The error message returned because the specified ACL ID is invalid.
403	InvalidId.ACR	The specified ACL rule ID is invalid.	The error message returned because the specified ACL rule ID is invalid.
403	InvalidPortRange	The specified port range is invalid.	The error message returned because the specified port range is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error occurred.

For a list of error codes, visit the API Error Center.

7.10. DescribeACLAttribute

Queries an access control list (ACL).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeACLAttribute	The operation that you want to perform. Set the value to **DescribeACLAttribute**.
AclId	String	Yes	acl-ohlexqptfhy******	The ID of the ACL.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the ACL is deployed.
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: **1** to **50**. Default value: **10**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
Direction	String	No	out	The direction in which the ACL rule is applied. Valid values: • **in**: The ACL rule controls inbound network traffic of the on-premises network that is associated with the SAG instance. • **out**: The ACL rule controls outbound network traffic of the on-premises network that is associated with the SAG instance.
Order	String	No	1255444444	The ID of the order.
Name	String	No	doctest	The name of the ACL. The name must be 2 to 100 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.

Response parameters

Parameter	Type	Example	Description
Acrs	Array of Acr		The information about the ACL rules that belong to the ACL.
Acr			
AclId	String	acl-7louazbja80bmgxxxx	The ID of the ACL.
AcrId	String	acr-gxzxj5w9qqdf1cxxxx	The ID of the ACL rule.

Parameter	Type	Example	Description
Description	String	Description	The description of the ACL rule. The description must be **1 to 512** characters in length.
DestCidr	String	0.0.0.0/0	The range of the destination IP addresses. Set this parameter in CIDR notation. Example: 192.168.10.0/24.
DestPortRange	String	10000/20000	The range of the destination ports. Valid values: **-1** and **1** to **65535**. Set the destination port range in one of the following formats: 1/200 or 80/80. A value of -1/-1 indicates that all ports are available.
Direction	String	out	The direction in which the ACL rule is applied. Valid values: • **in**: The ACL rule controls inbound network traffic of the on-premises network that is associated with the SAG instance. • **out**: The ACL rule controls outbound network traffic of the on-premises network that is associated with the SAG instance.
DpiGroupIds	List	20	The IDs of application groups that match the current ACL rule. You can call the ListDpiGroups operation to query application group IDs and information.
DpiSignatureIds	List	1	The IDs of applications that match the current ACL rule. You can call the ListDpiSignatures operation to query application IDs and information.
GmtCreate	Long	1580821597000	The timestamp when the ACL rule was created. The timestamp is in Long format. If ACL rules have the same priority, the one with the smallest timestamp prevails.
IpProtocol	String	UDP	The protocol that is applied to the ACL rule. The supported protocols provided in this topic are for reference only. The actual protocols in the SAG console shall prevail. The value is not case-sensitive.
Name	String	doctest	The name of the ACL. The name must be 2 to 100 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.

Parameter	Type	Example	Description
Policy	String	drop	The action policy of the ACL rule. Valid values: • **accept**: allows the network traffic. • **drop**: blocks the network traffic.
Priority	Integer	70	The priority of the ACL rule. Valid values: **1 to 100**.
SourceCidr	String	0.0.0.0/0	The range of the source IP addresses. Set this parameter in CIDR notation. Example: 192.168.1.0/24.
SourcePortRange	String	30000/40000	The range of the source ports. Valid values: **-1** and **1** to **65535**. Set the destination port range in one of the following formats: 1/200 or 80/80. A value of -1/-1 indicates that all ports are available.
Type	String	WAN	The type of the ACL rule: • **LAN**: The ACL rule controls traffic of private IP addresses. • **WAN**: The ACL rule controls traffic of public IP addresses.
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	8F62CE77-FBA2-4F8D-AED9-0A02814EDA69	The ID of the request.
TotalCount	Integer	3	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeACLAttribute
&AclId=acl-ohlexqptfhy******
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` fomat

```
<DescribeACLAttribute>
  <PageNumber>1</PageNumber>
  <Acrs>
        <Acr>
              <IpProtocol>TCP</IpProtocol>
              <SourceCidr>10.XX.XX.0/24</SourceCidr>
              <SourcePortRange>1/65535</SourcePortRange>
              <AclId>acl-7louazbja80bmg****</AclId>
              <AcrId>acr-yjf99p2ffhw6cv****</AcrId>
              <Type>WAN</Type>
              <Policy>drop</Policy>
              <DestPortRange>15000/15000</DestPortRange>
              <DestCidr>39.XX.XX.0/24</DestCidr>
              <GmtCreate>1580821598000</GmtCreate>
              <Direction>out</Direction>
              <Priority>49</Priority>
        </Acr>
        <Acr>
              <IpProtocol>TCP</IpProtocol>
              <SourceCidr>11.XX.XX.0/8</SourceCidr>
              <SourcePortRange>1/65535</SourcePortRange>
              <AclId>acl-7louazbja80bmg****</AclId>
              <AcrId>acr-8jety1pnvarday****</AcrId>
              <Type>WAN</Type>
              <Policy>accept</Policy>
              <DestPortRange>1/65535</DestPortRange>
              <DestCidr>12.XX.XX.0/8</DestCidr>
              <GmtCreate>1580821597000</GmtCreate>
              <Direction>out</Direction>
              <Priority>50</Priority>
        </Acr>
        <Acr>
              <IpProtocol>UDP</IpProtocol>
              <SourceCidr>0.0.0.0/0</SourceCidr>
              <SourcePortRange>30000/40000</SourcePortRange>
              <AclId>acl-7louazbja80bmg****</AclId>
              <AcrId>acr-gxzxj5w9qqdf1c****</AcrId>
              <Type>WAN</Type>
              <Policy>drop</Policy>
              <DestPortRange>10000/20000</DestPortRange>
              <DestCidr>12.XX.XX.0/8</DestCidr>
              <GmtCreate>1580821597000</GmtCreate>
              <Direction>out</Direction>
              <Priority>70</Priority>
        </Acr>
  </Acrs>
  <TotalCount>3</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>8F62CE77-FBA2-4F8D-AED9-0A02814EDA69</RequestId>
</DescribeACLAttribute>
```


`JSON` format

```
{
 "PageNumber": 1,
 "Acrs": {
  "Acr": [
   {
    "IpProtocol": "TCP",
    "SourceCidr": "10.XX.XX.0/24",
    "SourcePortRange": "1/65535",
    "AclId": "acl-7louazbja80bmg****",
    "AcrId": "acr-yjf99p2ffhw6cv****",
    "Type": "WAN",
    "Policy": "drop",
    "DestPortRange": "15000/15000",
    "DestCidr": "39.XX.XX.0/24",
    "GmtCreate": 1580821598000,
    "Direction": "out",
    "Priority": 49
   },
   {
    "IpProtocol": "TCP",
    "SourceCidr": "11.XX.XX.0/8",
    "SourcePortRange": "1/65535",
    "AclId": "acl-7louazbja80bmg****",
    "AcrId": "acr-8jety1pnvarday****",
    "Type": "WAN",
    "Policy": "accept",
    "DestPortRange": "1/65535",
    "DestCidr": "12.XX.XX.0/8",
    "GmtCreate": 1580821597000,
    "Direction": "out",
    "Priority": 50
   },
   {
    "IpProtocol": "UDP",
    "SourceCidr": "0.0.0.0/0",
    "SourcePortRange": "30000/40000",
    "AclId": "acl-7louazbja80bmg****",
    "AcrId": "acr-gxzxj5w9qqdf1c****",
    "Type": "WAN",
    "Policy": "drop",
    "DestPortRange": "10000/20000",
    "DestCidr": "12.XX.XX.0/8",
    "GmtCreate": 1580821597000,
    "Direction": "out",
    "Priority": 70
   }
  ]
 },
 "TotalCount": 3,
 "PageSize": 10,
 "RequestId": "8F62CE77-FBA2-4F8D-AED9-0A02814EDA69"
}
```


Error codes

HttpCode	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a parameter is set to an invalid value.
403	InvalidId.ACL	The specified ACL ID is invalid.	The error message returned because the specified ACL ID is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error occurred.

For a list of error codes, visit the API Error Center.

8.SAG APP

8.1. DowngradeSmartAccessGatewaySoftware

You can call this operation to decrease the quota of clients that can be added to a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DowngradeSmartAccessGatewaySoftware	The operation that you want to perform. Set the value to **DowngradeSmartAccessGatewaySoftware**.
AutoPay	Boolean	Yes	true	Specify whether the order belongs to a subscription instance that has auto renewal enabled. • **false**: no • **true**: yes
DataPlan	Long	Yes	5	The data transfer plan for each client account. Unit: GB. The data transfer plan per account is 5 GB.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-n2uym2h45lnd31****	The ID of the SAG APP instance.
UserCount	Integer	Yes	5	The quota of clients that can be added to the SAG APP instance. Typically, you need to create an account for each user that needs to log on to SAG APP.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3145AF24-1A5E-4AB7-90DA-7201FDD90B8D	The ID of the request.
OrderId	String	204595234160786	The ID of the downgrade order.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DowngradeSmartAccessGatewaySoftware
&AutoPay=1
&DataPlan=5
&RegionId=cn-shanghai
&SmartAGId=sag-n2uym2h45lnd31****
&UserCount=5
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DowngradeSmartAccessGatewaySoftwareResponse>
  <RequestId>3145AF24-1A5E-4AB7-90DA-7201FDD90B8D</RequestId>
  <OrderId>204595234160786</OrderId>
</DowngradeSmartAccessGatewaySoftwareResponse>
```

`JSON` format

```
{
 "RequestId": "3145AF24-1A5E-4AB7-90DA-7201FDD90B8D",
 "OrderId": 204595234160786
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InvalidUserCount	The specified UserCount is invalid.	The error message returned because the specified quota is invalid.
400	SAG.InvalidDataPlan	The specified DataPlan is invalid.	The error message returned because the specified data transfer plan is invalid.

For a list of error codes, visit the API Error Center.

8.2. ModifyClientUserDNS

You can call this operation to modify the DNS settings of a Smart Access Gateway (SAG) instance associated with SAG APP.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyClientUserDNS	The operation that you want to perform. Set the value to **ModifyClientUserDNS**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance associated with SAG APP is deployed.
SmartAGId	String	Yes	sag-9uyg53s6juhpxv****	The ID of the SAG instance that is associated with SAG APP.

Parameter	Type	Required	Example	Description
AppDNS.N	RepeatList	No	100.XX.XX.100	The active and standby DNS servers that the SAG instance uses to connect to the private network. **Note** • If PrivateZone is used to connect the private network to Alibaba Cloud, set the DNS server addresses to 100.100.2.136 and 100.100.2.138. • For Android and macOS operating systems, you must use SAG APP 2.1.1 and later to configure DNS settings. • This parameter is optional. If you do not specify the DNS server addresses, the system does not set this parameter and clears the existing value.
RecoveredDNS.N	RepeatList	No	100.XX.XX.110	The active and standby DNS servers that the SAG instance uses to disconnect from the private network. **Note** This feature will be available soon.

Response parameters

Parameter	Type	Example	Description
RequestId	String	BFE2D0C0-B69F-422D-A8A3-928AD511B471	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyClientUserDNS
&RegionId=cn-shanghai
&SmartAGId=sag-9uyg53s6juhpxv****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyClientUserDNSResponse>
  <RequestId>BFE2D0C0-B69F-422D-A8A3-928AD511B471</RequestId>
</ModifyClientUserDNSResponse>
```

`JSON` format

```
{
    "RequestId": "BFE2D0C0-B69F-422D-A8A3-928AD511B471"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParam.Ip	The specified IP address is invalid.	The error message returned because the specified IP address is invalid.

For a list of error codes, visit the API Error Center.

8.3. DescribeClientUserDNS

You can call this operation to query the DNS settings of a Smart Access Gateway (SAG) instance associated with SAG APP.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeClientUserDNS	The operation that you want to perform. Set the value to **DescribeClientUserDNS**.
RegionId	String	Yes	cn-shanghai	The ID of the region where SAG APP is deployed.
SmartAGId	String	Yes	sag-9uyg53s6juhpxv****	The ID of the SAG instance that is associated with SAG APP.

Response parameters

Parameter	Type	Example	Description
AppDNS	List	100.XX.XX.100	The active and standby DNS servers that the SAG instance uses to connect to the private network.
RecoveredDNS	List	110.XX.XX.110	The active and standby DNS servers that the SAG instance uses to disconnect from the private network. **Note** This feature will be available soon.
RequestId	String	894AA8BD-0627-45B1-AA18-9CE1D50DA9D0	The ID of the request.

Examples

Sample requests:

```
http(s)://[Endpoint]/? Action=DescribeClientUserDNS
&RegionId=cn-shanghai
&SmartAGId=sag-9uyg53s6juhpxv****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeClientUserDNSResponse>
  <AppDNS>100.XX.XX.100</AppDNS>
  <AppDNS>100.XX.XX.130</AppDNS>
  <RequestId>894AA8BD-0627-45B1-AA18-9CE1D50DA9D0</RequestId>
</DescribeClientUserDNSResponse>
```

`JSON` format

```
{
 "AppDNS": [
  "100.XX.XX.100",
  "100.XX.XX.130"
 ],
 "RequestId": "894AA8BD-0627-45B1-AA18-9CE1D50DA9D0"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

8.4. RoamClientUser

Enables roaming for SAG APP clients. After roaming is enabled, the clients can access their private networks across areas.

Prerequisites

Before you perform this operation, read and understand the functions and descriptions of the roaming feature. For more information, see Configure roaming for clients.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates a sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	RoamClientUser	The operation that you want to perform. Set the value to **RoamClientUser**.
OriginRegionId	String	Yes	cn-shanghai	The ID of the region where the source SAG APP instance is deployed.

Parameter	Type	Required	Example	Description
OriginSmartAGId	String	Yes	sag-m9uhqekwnqcnyy****	The ID of the source SAG APP instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the destination SAG APP instance is deployed.
TargetSmartAGId	String	Yes	sag-ghwa10ko6ndwug****	The ID of the destination SAG APP instance.
UserName	String	Yes	test1	The usernames of the clients for which you want to enable roaming.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3200E8A3-563F-4FFC-8BDB-0F1263FA69E8	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=RoamClientUser
&OriginRegionId=cn-shanghai
&OriginSmartAGId=sag-m9uhqekwnqcnyy****
&TargetSmartAGId=sag-ghwa10ko6ndwug****
&UserName=test1
&<Common request parameters>
```

Sample success responses

`XML` format

```
<RoamClientUserResponse>
  <RequestId>26C24B63-5E5A-413A-9E49-FC0C0AE9DFB7</RequestId>
</RoamClientUserResponse>
```

`JSON` format

```
{
 "RequestId": "26C24B63-5E5A-413A-9E49-FC0C0AE9DFB7"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	ClientUser.NotSupportAction	You cannot create a user in the current SAG instance.	The error message returned because the specified SAG instance does not allow you to create client accounts.

HttpCode	Error code	Error message	Description
400	SAG.CidrEmpty	You must specify the CIDR blocks of SAG.	The error message returned because the CIDR block of the SAG instance is not specified.
400	ClientUser.BandwidthInvalid	The specified Bandwidth is invalid.	The error message returned because the bandwidth specified for the client account is invalid.
400	ClientUser.InvalidClientIp	The specified ClientIp is invalid.	The error message returned because the specified client IP address is invalid.
400	ClientUser.UserOverLimit	The maximum number of users is exceeded.	The error message returned because the number of client accounts added to the SAG APP instance has reached the upper limit.
400	ClientUser.UserExist	The specified user already exists.	The error message returned because the specified client account already exists.
400	ClientUser.NameInvalid	The specified UserName is invalid.	The error message returned because the format of the username is invalid.
400	SAG.CidrOverlap	The specified CIDR overlaps with an existing CIDR.	The error message returned because the CIDR blocks overlap with each other.

For a list of error codes, visit the API Error Center.

8.5. UpgradeSmartAccessGatewaySoftware

Increases the quota of client accounts of Smart Access Gateway (SAG) APP.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UpgradeSmartAccessGatewaySoftware	The operation that you want to perform. Set the value to **UpgradeSmartAccessGatewaySoftware**.
AutoPay	Boolean	Yes	1	Specify whether the order belongs to a subscription instance that has auto renewal enabled. Valid values: • **0**: no • **1**: yes **Note** If the parameter is set to 0, you must complete the payment in the SAG console after you call this operation.

Parameter	Type	Required	Example	Description
DataPlan	Long	Yes	5	The data transfer plan for each client account. Unit: GB. **Note** Each client account is assigned 5 GB data each month free of charge.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-8biez7habqwmx6****	The ID of the SAG APP instance.
UserCount	Integer	Yes	5	The quota of client accounts for the SAG APP instance. The quota that you purchase specifies the maximum number of client accounts that you can create. You can create a client account for each employee who needs to use SAG APP.

Response parameters

Parameter	Type	Example	Description
OrderId	String	20697688135****	The ID of the order.
RequestId	String	97A4F8A5-603E-4C3B-A91E-17CD87090EA9	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=UpgradeSmartAccessGatewaySoftware
&AutoPay=1
&DataPlan=5
&RegionId=cn-shanghai
&SmartAGId=sag-8biez7habqwmx6****
&UserCount=5
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpgradeSmartAccessGatewaySoftwareResponse>
  <RequestId>97A4F8A5-603E-4C3B-A91E-17CD87090EA9</RequestId>
  <OrderId>20697688135****</OrderId>
</UpgradeSmartAccessGatewaySoftwareResponse>
```

`JSON` format

```
{
 "RequestId": "97A4F8A5-603E-4C3B-A91E-17CD87090EA9",
 "OrderId": "20697688135****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InvalidUserCount	The specified UserCount is invalid.	The error message returned because the specified number of client accounts is invalid.
400	SAG.InvalidDataPlan	The specified DataPlan is invalid.	The error message returned because the specified data transfer plan is invalid.

For a list of error codes, visit the API Error Center.

8.6. CreateSmartAccessGatewaySoftware

Creates a Smart Access Gateway (SAG) APP instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateSmartAccessGatewaySoftware	The operation that you want to perform. Set the value to **CreateSmartAccessGatewaySoftware**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG APP instance is deployed.
Period	Integer	Yes	12	The subscription period of the SAG APP instance. Unit: months. Valid values: **1~9**, **12**, **24**, and **36**.
AutoPay	Boolean	Yes	false	Specifies whether to automatically pay the bills of SAG APP instances. Default value: false. Valid values: • **true**: automatically pays the bills of SAG APP instances. • **false**: does not automatically pay the bills of SAG APP instances. If you set the parameter to false, after you call this operation, go to Billing Management of the SAG console to complete the payment, the instance can be created.
ChargeType	String	Yes	PREPAY	The billing method of the SAG APP instance. Set the value to **PREPAY**. This value indicates that the SAG APP instance is a subscription resource.

Parameter	Type	Required	Example	Description
UserCount	Integer	Yes	5	The quota of client accounts for the SAG APP instance. **Note** The quota must be a positive multiple of 5, for example, 5, 10, and 15.
DataPlan	Long	Yes	5	The quota of the traffic plan that the system allows each client account to use for free each month. Unit: GB. Set the value to **5**. **Note** The system allows each client account to use 5 GB traffic plan for free.

Response parameters

Parameter	Type	Example	Description
RequestId	String	24675405-74DF-4C94-82C6-B749580C498E	The ID of the request.
OrderId	String	203000000000000	The ID of the order that you placed to subscribe to the SAG APP instance.
SmartAGId	String	sag-gnhe6sywtare5******	The ID of the SAG APP instance.
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the SAG APP instance belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateSmartAccessGatewaySoftware
&RegionId=cn-shanghai
&Period=12
&AutoPay=true
&ChargeType=PREPAY
&UserCount=5
&DataPlan=5
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateSmartAccessGatewaySoftwareResponse>
    <RequestId>24675405-74DF-4C94-82C6-B749580C498E</RequestId>
    <OrderId>203000000000000</OrderId>
    <SmartAGId>sag-gnhe6sywtare5******</SmartAGId>
    <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
</CreateSmartAccessGatewaySoftwareResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "24675405-74DF-4C94-82C6-B749580C498E",
  "OrderId" : "203000000000000",
  "SmartAGId" : "sag-gnhe6sywtare5******",
  "ResourceGroupId" : "rg-acfm2iu4fnc****"
}
```

Error codes

For a list of error codes, visit the API Error Center.

8.7. CreateSmartAccessGatewayClientUser

Creates a client account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateSmartAccessGatewayClientUser	The operation that you want to perform. Set the value to **CreateSmartAccessGatewayClientUser**.
RegionId	String	Yes	cn-shanghai	The region ID of the Smart Access Gateway (SAG) app instance.
SmartAGId	String	Yes	sag-gnhe6sywtare5****	The ID of the SAG app instance.
UserName	String	No	doctest	The username of the client account. The usernames of client accounts added to the same SAG app instance must be unique. The username must be 7 to 33 characters in length, and can contain letters, digits, underscores (_), at signs (@), periods (.), and hyphens (-). It must start with a letter or a digit. **Note** For a client account, if you specify the username, you must also specify the password. If you specify the password, you must specify the username.

Parameter	Type	Required	Example	Description
ClientIp	String	No	10.0.XX.XX	• If you enable the client app service, you must set the IP address of the client app. The current client account uses the specified IP address to connect to Alibaba Cloud. **Note** The IP address must fall within a private CIDR block. • If you disable the client app service, an IP address within a private CIDR block is assigned to the client account. Each connection to Alibaba Cloud uses a different IP address.
UserMail	String	Yes	username@example.com	The email address of the client account. The username and password are sent to the specified email address by the administrator.
Bandwidth	Long	Yes	20	The maximum bandwidth value. Unit: Kbit/s. Valid values: **1 to 20000**. Default value: **2000**.
Password	String	No	duuf****	The password that is used to log on to the SAG app. The password must be 8 to 32 characters in length. It can contain letters, digits, underscores (_), at signs (@), and hyphens (-). It must start with a letter or a digit.

Response parameters

Parameter	Type	Example	Description
UserName	String	doc	The username.
RequestId	String	72E82F5E-66E8-4C22-BF1F-5CEB7DC132E7	The ID of the request.
UserMail	String	username@example.com	The email address of the client account.
Bandwidth	Integer	20	The maximum bandwidth value. Unit: Kbit/s.
ClientIp	String	10.0.XX.XX	The IP address of the client app.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateSmartAccessGatewayClientUser
&RegionId=cn-shanghai
&SmartAGId=sag-gnhe6sywtare5****
&UserName=doctest
&ClientIp=10.0.XX.XX
&UserMail=username@example.com
&Bandwidth=20
&Password=duuf****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateSmartAccessGatewayClientUserResponse>
    <UserName>doc</UserName>
    <RequestId>72E82F5E-66E8-4C22-BF1F-5CEB7DC132E7</RequestId>
    <UserMail>username@example.com</UserMail>
    <Bandwidth>20</Bandwidth>
    <ClientIp>10.0.XX.XX</ClientIp>
</CreateSmartAccessGatewayClientUserResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "UserName" : "doc",
  "RequestId" : "72E82F5E-66E8-4C22-BF1F-5CEB7DC132E7",
  "UserMail" : "username@example.com",
  "Bandwidth" : 20,
  "ClientIp" : "10.0.XX.XX"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ClientUser.BandwidthInvalid	The specified Bandwidth is invalid.	The error message returned because the bandwidth specified for the client account is invalid.
400	ClientUser.EmailEmpty	You must specify UserEmail.	The error message returned because the email address of the client account is not specified.
400	ClientUser.EmailInvalid	The format of the specified UserEmail is invalid.	The error message returned because the format of the specified email address is invalid.
400	ClientUser.InvalidClientIp	The specified ClientIp is invalid.	The error message returned because the specified IP address is invalid.
400	ClientUser.IpEmpty	You must specify ClientIp.	The error message returned because no static IP address is specified.
400	ClientUser.IpInvalid	The specified ClientIp is invalid.	The error message returned because the specified static IP address is invalid.
400	ClientUser.NameEmpty	You must specify UserName.	The error message returned because the username is not specified.

HttpCode	Error code	Error message	Description
400	ClientUser.NameInvalid	The specified UserName is invalid.	The error message returned because the format of the username is invalid.
400	ClientUser.UserExist	The specified user already exists.	The error message returned because the specified client account already exists.
400	ClientUser.UserOverLimit	The maximum number of users is exceeded.	The error message returned because the number of client accounts added to the SAG app instance has reached the upper limit.
400	SAG.CidrEmpty	You must specify the CIDR blocks of SAG.	The error message returned because the CIDR block of the SAG instance is not specified.
400	ClientUser.PasswordInvalid	The specified password format is invalid.	The error message returned because the format of the specified password is invalid.

For a list of error codes, visit the API Error Center.

8.8. DescribeSmartAccessGatewayClientUsers

Queries client accounts added to a Smart Access Gateway (SAG) APP instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeSmartAccessGatewayClientUsers	The operation that you want to perform. Set the value to **DescribeSmartAccessGatewayClientUsers**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-jfkskjfjf********	The ID of the SAG app instance.
UserName	String	No	doctest	The username of the client.
PageNumber	Integer	No	1	The page number of the returned page. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**.
UserMail	String	No	123456@example.com	The email address of the client.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	1	The total number of entries returned.
PageSize	Integer	10	The number of entries to return on each page.
RequestId	String	62F4CF10-F909-487E-8E95-BC35457C5F50	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.
Users	Array of User		The information about the client account.
User			
Bandwidth	Integer	2000	The bandwidth that can be used by the clients. Unit: Kbit/s.
State	Integer	1	Indicates whether the client is enabled. Valid values: • **0**: indicates that the client is enabled. • **1**: indicates that the client is disabled.
ClientIp	String	10.10.10.1	The IP address assigned by the system to the client.
UserName	String	doctest	The username of the client.
UserMail	String	123456@example.com	The email address of the client.
AccelerateBandwidth	Long	1000	The peak application acceleration bandwidth available to the client. Unit: Kbit/s.
IsStaticIp	Long	true	Indicates whether the client IP address is a static IP address. • **true** • **false**

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeSmartAccessGatewayClientUsers
&RegionId=cn-shanghai
&SmartAGId=sag-jfkskjfjf********
&UserName=doctest
&PageNumber=1
&PageSize=10
&UserMail=123456@example.com
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeSmartAccessGatewayClientUsersResponse>
    <TotalCount>1</TotalCount>
    <PageSize>10</PageSize>
    <RequestId>62F4CF10-F909-487E-8E95-BC35457C5F50</RequestId>
    <PageNumber>1</PageNumber>
    <Users>
        <Bandwidth>2000</Bandwidth>
        <State>1</State>
        <ClientIp>10.10.10.1</ClientIp>
        <UserName>doctest</UserName>
        <UserMail>123456@example.com</UserMail>
        <AccelerateBandwidth>1000</AccelerateBandwidth>
    </Users>
</DescribeSmartAccessGatewayClientUsersResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 1,
  "PageSize" : 10,
  "RequestId" : "62F4CF10-F909-487E-8E95-BC35457C5F50",
  "PageNumber" : 1,
  "Users" : [ {
    "Bandwidth" : 2000,
    "State" : 1,
    "ClientIp" : "10.10.10.1",
    "UserName" : "doctest",
    "UserMail" : "123456@example.com",
    "AccelerateBandwidth" : 1000
  } ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not set.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

8.9. ResetSmartAccessGatewayClientUserPassword

You can call this operation to reset the password used to log on to Smart Access Gateway (SAG) APP.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ResetSmartAccessGatewayClientUserPassword	The operation that you want to perform. Set the value to **ResetSmartAccessGatewayClientUserPassword**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-jdfnf*********	The ID of the SAG APP instance.
UserName	String	Yes	doctest	The username of the client account whose password you want to reset. Usernames of client accounts added to the same SAG APP instance must be unique.
Password	String	No	teste111	The new password. The password must be 8 to 32 characters in length, and can contain underscore (_) and hyphens (_). It must start with a letter or Chinese character.

Response parameters

Parameter	Type	Example	Description
RequestId	String	BE1F7E80-4558-4021-B6D2-B94DA8AAAF81	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ResetSmartAccessGatewayClientUserPassword
&RegionId=cn-shanghai
&SmartAGId=sag-jdfnf*********
&UserName=doctest
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ResetSmartAccessGatewayClientUserPasswordResponse>
   <RequestId>BE1F7E80-4558-4021-B6D2-B94DA8AAAF81</RequestId>
    </ResetSmartAccessGatewayClientUserPasswordResponse>
```

`JSON` format

```
{
    "RequestId": "BE1F7E80-4558-4021-B6D2-B94DA8AAAF81"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ClientUser.NameEmpty	You must specify UserName.	The error message returned because the username is not specified.
400	ClientUser.NameInvalid	The specified UserName is invalid.	The error message returned because the format of the specified username is invalid.
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

8.10. DeleteSmartAccessGatewayClientUser

You can call this operation to delete a client account from a Smart Access Gateway (SAG) APP instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteSmartAccessGatewayClientUser	The operation that you want to perform. Set the value to **DeleteSmartAccessGatewayClientUser**.
RegionId	String	Yes	cn-shanghai	The region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-hdjffn******	The ID of the SAG APP instance.
UserName	String	Yes	doctest	The username of the client account that you want to delete. Usernames of client accounts added to the same SAG APP instance are unique. For a client account, if you specify the username, you must also specify the password.

Response parameters

Parameter	Type	Example	Description
RequestId	String	09AD82DC-FE26-4B66-B526-2FA6BE82A4D3	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DeleteSmartAccessGatewayClientUser
&RegionId=cn-shanghai
&SmartAGId=sag-hdjffn******
&UserName=doctest
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteSmartAccessGatewayClientUserResponse>
      <RequestId>09AD82DC-FE26-4B66-B526-2FA6BE82A4D3</RequestId>
    </DeleteSmartAccessGatewayClientUserResponse>
```

`JSON` format

```
{
    "RequestId": "09AD82DC-FE26-4B66-B526-2FA6BE82A4D3"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the SAG instance ID is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	ClientUser.NameEmpty	You must specify UserName.	The error message returned because the username is not specified.
400	ClientUser.NameInvalid	The specified UserName is invalid.	The error message returned because the format of the specified username is invalid.
400	ClientUser.UserInUsing	The specified SAG user account is already in use this month. You cannot delete it.	The error message returned because the specified client account is already using SAG APP in the current month and cannot be deleted.

For a list of error codes, visit the API Error Center.

8.11. ModifySmartAccessGatewayClientUser

Modifies the bandwidth value and email address of a client.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySmartAccessGatewayClientUser	The operation that you want to perform. Set the value to **ModifySmartAccessGatewayClientUser**.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The region ID of the SAG app instance. You can call the DescribeRegions operation to query the most recent region list.
SmartAGId	String	Yes	sag-rz2e23c0e78ema****	The ID of the SAG app instance.
UserName	String	Yes	doctest	The username of the client.
Bandwidth	Integer	Yes	1	The bandwidth that can be used by the client. Unit: Kbit/s. Valid values: **1** to **5000**.
Email	String	No	username@example.com	The email address of the client.

Response parameters

Parameter	Type	Example	Description
UserName	String	doctest	The username of the client.
RequestId	String	5F0078B5-8AAD-4B53-8351-4C91B8EA528A	The ID of the request.
UserMail	String	username@example.com	The email address of the client.
Bandwidth	Integer	1	The bandwidth that can be used by the client. Unit: Kbit/s.
ClientIp	String	10.10.10.1	The IP address of the client.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifySmartAccessGatewayClientUser
&RegionId=cn-shanghai
&SmartAGId=sag-rz2e23c0e78ema****
&UserName=doctest
&Bandwidth=1
&Email=username@example.com
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ModifySmartAccessGatewayClientUserResponse>
    <RequestId>5F0078B5-8AAD-4B53-8351-4C91B8EA528A</RequestId>
    <UserMail>username@example.com</UserMail>
    <UserName>doctest</UserName>
    <Bandwidth>1</Bandwidth>
</ModifySmartAccessGatewayClientUserResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "5F0078B5-8AAD-4B53-8351-4C91B8EA528A",
  "UserMail" : "username@example.com",
  "UserName" : "doctest",
  "Bandwidth" : 1
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ClientUser.BandwidthInvalid	The specified Bandwidth is invalid.	The error message returned because the bandwidth specified for the client account is invalid.
400	ClientUser.NameEmpty	You must specify UserName.	The error message returned because the username is not specified.
400	ClientUser.NameInvalid	The specified UserName is invalid.	The error message returned because the format of the username is invalid.
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not set.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	ResourceNotFound.User	The specified user is not found.	The error message returned because the specified user does not exist.

For a list of error codes, visit the API Error Center.

8.12. DescribeUserOnlineClientStatistics

You can call this operation to query the number of times that a client has connected to Alibaba Cloud through a specific Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
Action	String	No	DescribeUserOnlineClientStatistics	The operation that you want to perform. Set the value to **DescribeUserOnlineClientStatistics**.
RegionId	String	Yes	cn-shanghai	The region where the SAG APP instance is deployed.
UserNames.N	RepeatList	Yes	doctest	The list of usernames of the client accounts. Separate multiple usernames with commas (,). You can query a maximum of 50 clients at a time.
SmartAGId	String	No	sag-sfjg*****	The ID of the SAG APP instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	14846A6A-2192-4F6A-B272-B8BD68EBC89B	The ID of the request.
UserStatistics	Array		The connection status of the specified clients.
UserName	String	doctest	The username of the client account.
OnlineCount	String	2	The number of clients that are connected to Alibaba Cloud.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeUserOnlineClientStatistics
&RegionId=cn-shanghai
&UserNames.1=doctest
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeUserOnlineClientStatisticsResponse>
      <RequestId>14846A6A-2192-4F6A-B272-B8BD68EBC89B</RequestId>
      <UserStatistics>
            <Statistics>
                  <UserName>doctest</UserName>
                  <OnlineCount>0</OnlineCount>
            </Statistics>
      </UserStatistics>
    </DescribeUserOnlineClientStatisticsResponse>
```

`JSON` format

```
{
    "RequestId": "14846A6A-2192-4F6A-B272-B8BD68EBC89B",
    "UserStatistics": {
        "Statistics": [
            {
                "UserName": "doctest",
                "OnlineCount": 0
            }
        ]
    }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ClientUser.NameEmpty	You must specify UserName.	The error message returned because the username is not specified.
400	ClientUser.NameInvalid	The specified UserName is invalid.	The error message returned because the format of the username is invalid.
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

8.13. KickOutClients

You can call this operation to disconnect a client from Alibaba Cloud based on the ID of the Smart Access Gateway (SAG) APP instance and username of the client account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-ehjfb*******	The ID of the SAG APP instance.
Username	String	Yes	doctest	The username of the client account. Usernames of client accounts added to the same SAG APP instance are unique. For a client account, if you specify the username, you must also specify the password.

Parameter	Type	Required	Example	Description
Action	String	No	KickOutClients	The operation that you want to perform. Set the value to **KickOutClients**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	76FD7E08-6AA1-4B1B-99FB-8B3CA6C99A8E	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=KickOutClients
&amp;RegionId=cn-shanghai
&amp;SmartAGId=sag-ehjfb*******
&amp;Username=doctest
&amp;&lt;Common request parameters&gt;
```

Sample success responses

`XML` format

```
<KickOutClientsResponse>
      <RequestId>7108A98F-C47D-45F7-A4D8-C2E3022735DA</RequestId>
    </KickOutClientsResponse>
```

`JSON` format

```
{
    "RequestId":"7108A98F-C47D-45F7-A4D8-C2E3022735DA"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ClientUser.NameEmpty	You must specify UserName.	The error message returned because the username is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

8.14. DescribeUserOnlineClients

You can call this operation to query the connection information about a client based on the ID of the Smart Access Gateway (SAG) APP instance and username of the client account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-wfjgn**********	The ID of the SAG APP instance.
UserName	String	Yes	doctest	The username of the client account. Usernames of client accounts added to the same SAG APP instance are unique. For a client account, if you specify the username, you must also specify the password.
Action	String	No	DescribeUserOnlineClients	The operation that you want to perform. Set the value to **DescribeUserOnlineClients**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	7108A98F-C47D-45F7-A4D8-C2E3022735DA	The ID of the request.
Users			The information about the client.
ClientIp	String	10.**. **. **	The IP address of the client.
OnlineTime	String	1559125519	The time when the client was connected to Alibaba Cloud.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeUserOnlineClients
&amp;RegionId=cn-shanghai
&amp;SmartAGId=sag-wfjgn**********
&amp;UserName=doctest
&amp;&lt;Common request parameters&gt;
```

Sample success responses

`XML` format

```
<DescribeUserOnlineClientsResponse>
      <Users>
            <User>
                  <OnlineTime>1559125519</OnlineTime>
                  <ClientIp>192.168.0.2</ClientIp>
            </User>
      </Users>
      <RequestId>92B22889-5451-4A1D-9432-66ED5AB3DD04</RequestId>
    </DescribeUserOnlineClientsResponse>
```

`JSON` format

```
{
    "Users":{
        "User":[
            {
                "OnlineTime":"1559125519",
                "ClientIp":"192.168.0.2"
            }
        ]
    },
    "RequestId":"92B22889-5451-4A1D-9432-66ED5AB3DD04"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ClientUser.NameEmpty	You must specify UserName.	The error message returned because the username is not specified.
400	ClientUser.NameInvalid	The specified UserName is invalid.	The error message returned because the format of the username is invalid.
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

8.15. DescribeSagOnlineClientStatistics

You can call this operation to query the number of clients that are connected to Alibaba Cloud through a specific Smart Access Gateway (SAG) APP instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagOnlineClientStatistics	The operation that you want to perform. Set the value to **DescribeSagOnlineClientStatistics**.
RegionId	String	Yes	cn-shanghai	The region where the SAG APP instance is deployed.
SmartAGIds.N	RepeatList	No	sag-va03wf4l4idaj*****	The list of IDs of SAG instances. Maximum value of N: 50.

Response parameters

Parameter	Type	Example	Description
RequestId	String	9EC839B6-0EA5-4F19-A4B7-A9E465D057AE	The ID of the request.
SagStatistics	Array		The information about clients that are connected to Alibaba Cloud.
SmartAGId	String	sag-va03wf4l4idaj*****	The ID of the SAG APP instance.
OnlineCount	String	0	The number of clients that are connected to Alibaba Cloud through the specified SAG APP instance.

Examples

Sample requests

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

Sample success responses

`XML` format

```
<DescribeSagOnlineClientStatisticsResponse>
   <RequestId>9EC839B6-0EA5-4F19-A4B7-A9E465D057AE</RequestId>
   <SagStatistics>
      <Statistics>
         <SmartAGId>sag-va03wf4l4idaj0***</SmartAGId>
         <OnlineCount>0</OnlineCount>
      </Statistics>
   </SagStatistics>
    </DescribeSagOnlineClientStatisticsResponse>
```

`JSON` format

```
{
    "RequestId": "9EC839B6-0EA5-4F19-A4B7-A9E465D057AE",
    "SagStatistics": {
        "Statistics": [
            {
                "SmartAGId": "sag-va03wf4l4idaj00***",
                "OnlineCount": 0
            }
        ]
    }
}
```

Error codes

For a list of error codes, visit the API Error Center.

8.16. DescribeUserFlowStatistics

You can call this operation to query the data transfer statistics of clients added to a specific Smart Access Gateway (SAG) APP instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-mfkg*****	The ID of the SAG APP instance.
UserNames.N	RepeatList	Yes	12	The list of usernames of client accounts. Maximum value of N: 50.
Action	String	No	DescribeUserFlowStatistics	The operation that you want to perform. Set the value to **DescribeUserOnlineClients**.
StatisticsDate	String	No	201905	The month during which the data transfer statistics are collected. If you do not specify a month, the current month is queried.

Response parameters

Parameter	Type	Example	Description
RequestId	String	9552AD68-18EA-4074-B27D-40040FBA9683	The ID of the request.
SagStatistics			The statistics of data transfer.
TotalBytes	String	12	The amount of data consumed. Unit: byte.
UserName	String	doctest	The username of the client account.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeUserFlowStatistics
&amp;RegionId=cn-hangzhou
&amp;SmartAGId=sag-mfkg*****
&amp;UserNames.1=12
&amp;&lt;Common request parameters&gt;
```

Sample success responses

`XML` format

```
<DescribeUserFlowStatisticsResponse>
      <SagStatistics>
            <Statistics>
                  <UserName>zhanlg</UserName>
                  <TotalBytes>555352</TotalBytes>
            </Statistics>
      </SagStatistics>
      <RequestId>ADD09081-31A9-4E7D-B15C-135C6EBEEB63</RequestId>
    </DescribeUserFlowStatisticsResponse>
```

`JSON` format

```
{
    "RequestId":"ADD09081-31A9-4E7D-B15C-135C6EBEEB63",
    "SagStatistics":{
        "Statistics":[
            {
                "UserName":"zhanlg",
                "TotalBytes":555352
            }
        ]
    }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

8.17. EnableSmartAccessGatewayUser

You can call this operation to enable a client account added to a specific Smart Access Gateway (SAG) APP instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-va03wf4l4idaj*****	The ID of the SAG APP instance.
UserName	String	Yes	1234	The username of the client account.

Parameter	Type	Required	Example	Description
Action	String	No	EnableSmartAccessGatewayUser	The operation that you want to perform. Set the value to **EnableSmartAccessGatewayUser**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	F5894299-84A2-48C1-A999-28908B99F45D	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=EnableSmartAccessGatewayUser
&RegionId=cn-shanghai
&SmartAGId=sag-va03wf4l4idaj*****
&UserName=1234
&<Common request parameters>
```

Sample success responses

`XML` format

```
<EnableSmartAccessGatewayUserResponse>
   <RequestId>F5894299-84A2-48C1-A999-28908B99F45D</RequestId>
</EnableSmartAccessGatewayUserResponse>
```

`JSON` format

```
{
 "RequestId":"F5894299-84A2-48C1-A999-28908B99F45D"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Forbbiden.SubUser	You are not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because the user does not have the permission to manage the specified resource.

For a list of error codes, visit the API Error Center.

8.18. DisableSmartAccessGatewayUser

You can call this operation to disable a client account added to a specific Smart Access Gateway (SAG) APP instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-va03wf4l4idaj*****	The ID of the SAG APP instance.
UserName	String	Yes	1234	The username of the client account.
Action	String	No	DisableSmartAccessGatewayUser	The operation that you want to perform. Set the value to **DisableSmartAccessGatewayUser**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	05E86199-6CF6-4F4E-A9CE-9BFC5B020B72	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DisableSmartAccessGatewayUser
&RegionId=cn-shanghai
&SmartAGId=sag-va03wf4l4idaj*****
&UserName=1234
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DisableSmartAccessGatewayUserResponse>
   <RequestId>05E86199-6CF6-4F4E-A9CE-9BFC5B020B72</RequestId>
</DisableSmartAccessGatewayUserResponse>
```

`JSON` format

```
{
 "RequestId":"05E86199-6CF6-4F4E-A9CE-9BFC5B020B72"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Forbbiden.SubUser	You are not authorized to operate on the specified resource.	The error message returned because you do not have the permission to manage the specified resource.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because the user does not have the permission to manage the specified resource.

For a list of error codes, visit the API Error Center.

8.19. Enterprise code management

8.19.1. DeleteEnterpriseCode

Deletes a specified enterprise code.

Background information

Before you call this operation, take note of the following rules:

- You cannot delete default enterprise codes.

  To delete a default enterprise code, change it to a custom enterprise code and then delete it. For more information, see UpdateEnterpriseCode.

- You cannot delete enterprise codes that are associated with a Smart Access Gateway (SAG) APP instance.

  To delete an enterprise code that is associated with an SAG APP instance, associate the SAG APP instance with another enterprise code, and then delete the enterprise code. For more information, see UpdateSmartAGEnterpriseCode.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteEnterpriseCode	The operation that you want to perform. Set the value to **DeleteEnterpriseCode**.
EnterpriseCode	String	Yes	12***	The enterprise code that you want to delete.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the enterprise code belongs. You can call the DescribeRegions operation to query the most recent region list.
ClientToken	String	No	02fb3da4****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
RequestId	String	9DD3DFB2-A9BF-4BEE-9542-661411A9851E	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteEnterpriseCode
&EnterpriseCode=12***
&RegionId=cn-shanghai
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteEnterpriseCodeResponse>
  <RequestId>9DD3DFB2-A9BF-4BEE-9542-661411A9851E</RequestId>
</DeleteEnterpriseCodeResponse>
```

`JSON` format

```
{
 "RequestId": "9DD3DFB2-A9BF-4BEE-9542-661411A9851E"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	EnterpriseCode.BeingUsed	The specified enterprise code is being used.	The error message returned because the specified enterprise code is in use.
400	EnterpriseCode.DeleteLimit	The specified default enterprise code cannot be deleted.	The error message returned because the specified enterprise code is a default one and you cannot delete it.
400	EnterpriseCode.NotExist	The specified enterprise code does not exist.	The error message returned because the specified enterprise code does not exist.

For a list of error codes, visit the API Error Center.

8.19.2. UpdateEnterpriseCode

Modifies the attributes of a specified enterprise code.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateEnterpriseCode	The operation that you want to perform. Set the value to **UpdateEnterpriseCode**.
EnterpriseCode	String	Yes	12P**	The enterprise code.
IsDefault	Boolean	Yes	true	Specifies whether to specify the enterprise code as the default one. Valid values: • **true**: yes • **false**: no

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region to which the enterprise code belongs. You can call the DescribeRegions operation to query the most recent region list.
ClientToken	String	No	02fb3da4****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
RequestId	String	FBDB18D8-E91E-4978-8D6C-6E2E3EE10133	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=UpdateEnterpriseCode
&EnterpriseCode=12P**
&IsDefault=true
&RegionId=cn-shanghai
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateEnterpriseCodeResponse>
  <RequestId>FBDB18D8-E91E-4978-8D6C-6E2E3EE10133</RequestId>
</UpdateEnterpriseCodeResponse>
```

`JSON` format

```
{"RequestId":"FBDB18D8-E91E-4978-8D6C-6E2E3EE10133"}
```

Error codes

HttpCode	Error code	Error message	Description
400	EnterpriseCode.NotExist	The specified enterprise code does not exist.	The error message returned because the specified enterprise code does not exist.

For a list of error codes, visit the API Error Center.

8.19.3. UpdateSmartAGEnterpriseCode

Associates a Smart Access Gateway (SAG) APP instance with another enterprise code.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateSmartAGEnterpriseCode	The operation that you want to perform. Set the value to **UpdateSmartAGEnterpriseCode**.
EnterpriseCode	String	Yes	12P**	The enterprise code with you want to associate the SAG APP instance.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG APP instance is deployed.
SmartAGId	String	Yes	sag-rz2e23c0e78ema****	The ID of the SAG APP instance.
ClientToken	String	No	02fb3da4-130e****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
RequestId	String	FBDB18D8-E91E-4978-8D6C-6E2E3EE10133	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=UpdateSmartAGEnterpriseCode
&EnterpriseCode=12P**
&RegionId=cn-shanghai
&SmartAGId=sag-rz2e23c0e78ema****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateSmartAGEnterpriseCodeResponse>
  <RequestId>FBDB18D8-E91E-4978-8D6C-6E2E3EE10133</RequestId>
</UpdateSmartAGEnterpriseCodeResponse>
```

`JSON` format

```
{"RequestId":"FBDB18D8-E91E-4978-8D6C-6E2E3EE10133"}
```

Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is not set. Check whether you have set all required parameters.
400	EnterpriseCode.UserNameConflict	The specified username already exists.	The error message returned because the specified username already exists.
403	InternalError	An internal server error occurred.	The error code returned because an internal server error occurred.

For a list of error codes, visit the API Error Center.

8.19.4. CreateEnterpriseCode

Creates an enterprise code.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateEnterpriseCode	The operation that you want to perform. Set the value to **CreateEnterpriseCode**.
EnterpriseCode	String	Yes	12P**	The enterprise code that you want to create. The enterprise code must be five characters in length, and can contain letters and digits. The enterprise code must be globally unique.
RegionId	String	Yes	cn-shanghai	The ID of the region where you want to create the enterprise code. You can call the DescribeRegions operation to query the most recent region list.
ClientToken	String	No	02fb3da4****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
RequestId	String	FBDB18D8-E91E-4978-8D6C-6E2E3EE10133	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=CreateEnterpriseCode
&EnterpriseCode=12P**
&RegionId=cn-shanghai
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateEnterpriseCodeResponse>
  <RequestId>FBDB18D8-E91E-4978-8D6C-6E2E3EE10133</RequestId>
</CreateEnterpriseCodeResponse>
```

`JSON` format

```
{"RequestId":"FBDB18D8-E91E-4978-8D6C-6E2E3EE10133"}
```

Error codes

HttpCode	Error code	Error message	Description
400	EnterpriseCode.BeenOccupied	The specified enterprise code is occupied by other enterprises.	The error message returned because the specified enterprise code already exists.

For a list of error codes, visit the API Error Center.

8.19.5. ListEnterpriseCode

Queries enterprise codes.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListEnterpriseCode	The operation that you want to perform. Set the value to **ListEnterpriseCode**.
RegionId	String	Yes	cn-shanghai	The ID of the region. You can call the DescribeRegions operation to query the most recent region list.
EnterpriseCode	String	No	12P**	The enterprise code that you want to query.
IsDefault	Boolean	No	false	Specifies whether to query only default enterprise codes. Valid values: • **true**: yes • **false** (default): no

Parameter	Type	Required	Example	Description
NextToken	String	No	caeba0bbb2be03f84eb48b699f0*****	The token for returning the next page when the data is returned in more than one page.
MaxResults	Integer	No	2	The number of entries returned per page. Valid values: **1** to **100**. Default value: **10**.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	2	The total number of entries returned.
NextToken	String	caeba0bbb2be03f84eb48b699f0*****	The token for returning the next page when the data is returned in more than one page.
RequestId	String	1A57EF84-D587-4CF9-B0C8-307488BF52C9	The ID of the request.
MaxResults	Integer	2	The number of entries returned per page.
EnterpriseCodes	Array of EnterpriseCode		The information about enterprise codes.
IsDefault	Boolean	true	Indicates whether the enterprise code is the default one. • **true**: yes • **false**: no
EnterpriseCode	String	12P**	The enterprise code.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListEnterpriseCode
&RegionId=cn-shanghai
&EnterpriseCode=12P**
&IsDefault=true
&NextToken=caeba0bbb2be03f84eb48b699f0*****
&MaxResults=2
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListEnterpriseCodeResponse>
    <TotalCount>2</TotalCount>
    <RequestId>1A57EF84-D587-4CF9-B0C8-307488BF52C9</RequestId>
    <MaxResults>10</MaxResults>
    <EnterpriseCodes>
        <IsDefault>false</IsDefault>
        <EnterpriseCode>12P**</EnterpriseCode>
        <SmartAGCount>2</SmartAGCount>
    </EnterpriseCodes>
    <EnterpriseCodes>
        <IsDefault>true</IsDefault>
        <EnterpriseCode>12P**</EnterpriseCode>
        <SmartAGCount>5</SmartAGCount>
    </EnterpriseCodes>
</ListEnterpriseCodeResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 2,
  "RequestId" : "1A57EF84-D587-4CF9-B0C8-307488BF52C9",
  "MaxResults" : 10,
  "EnterpriseCodes" : [ {
    "IsDefault" : false,
    "EnterpriseCode" : "12P**",
    "SmartAGCount" : 2
  }, {
    "IsDefault" : true,
    "EnterpriseCode" : "12P**",
    "SmartAGCount" : 5
  } ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

9.QoS policies

9.1. CreateQos

Creates a quality of service (QoS) policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateQos	The operation that you want to perform. Set the value to **CreateQos**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the QoS policy is deployed.
QosName	String	Yes	doctest	The name of the QoS policy. The name must be 2 to 100 characters in length and can contain letters, digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
QosDescription	String	No	testdesc	The description of the QoS policy. The description must be 1 to 512 characters in length and can contain letters, digits, underscores (_), and hyphens (-). It must start with a letter.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AACF5140-783D-48F0-9E4F-E59D716F7D08	The ID of the request.
QosId	String	rg-acfm2iu4fnc****	The ID of the QoS policy.
ResourceGroupId	String	qos-oek3r2cmvk7m8q****	The ID of the resource group to which the QoS policy belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateQos
&RegionId=cn-shanghai
&QosName=doctest
&QosDescription=testdesc
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateQosResponse>
    <RequestId>AACF5140-783D-48F0-9E4F-E59D716F7D08</RequestId>
    <QosId>rg-acfm2iu4fnc****</QosId>
    <ResourceGroupId>qos-oek3r2cmvk7m8q****</ResourceGroupId>
</CreateQosResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "AACF5140-783D-48F0-9E4F-E59D716F7D08",
  "QosId" : "rg-acfm2iu4fnc****",
  "ResourceGroupId" : "qos-oek3r2cmvk7m8q****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	QosAmountLimit	No more QoS can be created. You can submit a ticket to increase the quota of QoSes.	The error message returned because the number of QoS policies that you have created has reached the upper limit. Submit a ticket to increase the quota.
400	MissParameter.RegionId	You must specify RegionId.	The error message returned because the ID (RegionId) of the region is not specified.
400	MissParameter.Name	You must specify Name.	The error message returned because the name (QosName) of the QoS policy is not specified.
400	InvalidParameter.Name	The specified Name is invalid.	The error message returned because the specified name (QosName) of the QoS policy is invalid.
400	InvalidParameter.Description	The specified Description is invalid.	The error message returned because the specified description (QosDescription) of the QoS policy is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.

For a list of error codes, visit the API Error Center.

9.2. ModifyQos

You can call this operation to modify a quality of service (QoS) policy, for example, its name.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyQos	The operation that you want to perform. Set the value to **ModifyQos**.
QosId	String	Yes	qos-xhwhyuo43l********	The ID of the QoS policy that you want to modify.
QosName	String	Yes	doctest	The name of the QoS policy.
RegionId	String	Yes	cn-hangzhou	The region where the QoS policy is deployed.
QosDescription	String	No	qosdes	The description of the QoS policy. The description must be 1 to 512 characters in length, and can contain digits, underscores (_), and hyphens (-). It must start with a letter or Chinese character.

Response parameters

Parameter	Type	Example	Description
RequestId	String	EE837E9F-BD50-4C2B-9E47-260F9D848480	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyQos
&QosId=qos-xhwhyuo43l********
&QosName=doctest
&RegionId=cn-hangzhou
&<Common request parameter>
```

Sample success responses

`XML` format

```
<ModifyQosResponse>
   <RequestId>F77B3F0E-CAA2-41CF-A752-4F2893C5F7F0</RequestId>
    </ModifyQosResponse>
```

`JSON` format

```
{
"RequestId":"F77B3F0E-CAA2-41CF-A752-4F2893C5F7F0"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	MissParameter.RegionId	You must specify RegionId.	The error message returned because the ID (RegionId) of the region is not specified.

HttpCode	Error code	Error message	Description
400	MissParameter.QosId	You must specify QosId.	The error message returned because the ID (QosId) of the QoS policy is not specified.
400	MissParameter.Name	You must specify Name.	The error message returned because the name (Name) of the QoS policy is not specified.
400	InvalidParameter.Name	The specified Name is invalid.	The error message returned because the specified name (Name) of the QoS policy is invalid.
400	InvalidId.Qos	The specified QosId is invalid.	The error message returned because the specified ID (QosId) of the QoS policy is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal error occurred.
400	InvalidParameter.Description	The specified Description is invalid.	The error message returned because the specified description (Description) of the QoS policy is invalid.

For a list of error codes, visit the API Error Center.

9.3. DeleteQos

Deletes a Quality of Service (QoS) policy.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
QosId	String	Yes	qos-xhwhyuo43l********	The instance ID of the QoS policy to be deleted.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the QoS policy belongs.
Action	String	No	DeleteQos	The name of this action. Value: **DeleteQos**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	F77B3F0E-CAA2-41CF-A752-4F2893C5F7F0	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DeleteQos
&QosId=qos-xhwhyuo43l********
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` format

```
<DeleteQosResponse>
   <RequestId>F77B3F0E-CAA2-41CF-A752-4F2893C5F7F0</RequestId>
    </DeleteQosResponse>
```

`JSON` format

```
{
 "RequestId":"F77B3F0E-CAA2-41CF-A752-4F2893C5F7F0"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	InvalidId.Qos	The specified QosId is invalid.	The specified QosId is invalid.
403	InternalError	An internal server error occurred.	An internal error has occurred.
400	MissParameter.RegionId	You must specify RegionId.	You must specify the RegionId.
400	MissParameter.QosId	You must specify QosId.	You must specify the QosId.

For a list of error codes, visit the API Error Center.

9.4. DescribeQoses

Queries quality of service (QoS) policies in a specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeQoses	The operation that you want to perform. Set the value to **DescribeQoses**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the QoS policy is deployed.
QosIds	String	No	qos-oek3r2cmvk7m8q****	The ID of the QoS policy. • Separate multiple QoS polices with commas (,). • If you do not specify this parameter, all QoS policies in the region are queried.

Parameter	Type	Required	Example	Description
QosName	String	No	zxtest	The name of the QoS policy. The name must be 2 to 100 characters in length and can contain letters, digits, periods (.), underscores (_),and hyphens (-). The name must start with a letter.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Maximum value: **50**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	1	The total number of QoS polices.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	2B5F35DD-0D66-41FC-AA99-BAE473E1A7A2	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.
Qoses	Array of Qos		The list of QoS policies.
Qos			
QosDescription	String	description	The description of the QoS policy.
SagCount	String	0	The number of the SAG instances to which the QoS policy is applied.
SmartAGIds	String	sag-x34wj76fe0vhw*****,sag-jp04l844chg16*****	The IDs of the SAG instances to which the QoS policy is applied.
QosId	String	qos-oek3r2cmvk7m8q****	The ID of the QoS policy.
QosName	String	zxtest	The name of the QoS policy.
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the QoS policy belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeQoses
&RegionId=cn-shanghai
&QosIds=qos-oek3r2cmvk7m8q****
&QosName=zxtest
&PageSize=10
&PageNumber=1
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeQosesResponse>
    <TotalCount>1</TotalCount>
    <PageSize>10</PageSize>
    <RequestId>2B5F35DD-0D66-41FC-AA99-BAE473E1A7A2</RequestId>
    <PageNumber>1</PageNumber>
    <Qoses>
        <Qos>
            <SagCount>0</SagCount>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <QosId>qos-oek3r2cmvk7m8q****</QosId>
            <QosName>zxtest</QosName>
        </Qos>
    </Qoses>
</DescribeQosesResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 1,
  "PageSize" : 10,
  "RequestId" : "2B5F35DD-0D66-41FC-AA99-BAE473E1A7A2",
  "PageNumber" : 1,
  "Qoses" : {
    "Qos" : [ {
      "SagCount" : 0,
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "QosId" : "qos-oek3r2cmvk7m8q****",
      "QosName" : "zxtest"
    } ]
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a parameter is set to an invalid value.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.

For a list of error codes, visit the API Error Center.

9.5. CreateQosPolicy

Creates a traffic classification rule for a quality of service (QoS) policy.

Prerequisites

Make sure that a traffic throttling rule is created before you create a traffic classification rule. For more information, see CreateQosCar.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateQosPolicy	The operation that you want to perform. Set the value to **CreateQosPolicy**.
Description	String	No	desctest	The description of the traffic classification rule. The description must be 1 to 512 characters in length and can contain letters, digits, underscores (_), and hyphens (-). It must start with a letter.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the QoS policy belongs.
QosId	String	Yes	qos-xitd8690ucu8ro****	The ID of the QoS policy.
Priority	Integer	Yes	3	The priority of the traffic throttling policy to which the traffic classification rule belongs.
SourceCidr	String	Yes	10.10.10.0/24	The range of the source IP addresses. Specify the value of this parameter in CIDR notation. Example: 192.168.1.0/24.
DestCidr	String	Yes	10.10.20.0/24	The range of the destination IP addresses. Specify the value of this parameter in CIDR notation. Example: 192.168.10.0/24.
IpProtocol	String	Yes	TCP	The type of the protocol that applies to the traffic classification rule. The supported protocols provided in this topic are for reference only. The actual protocols in the console shall prevail.

Parameter	Type	Required	Example	Description
SourcePortRange	String	Yes	80/80	The range of source ports. Valid values: **1** to **65535** and **-1**. Set this parameter in one of the following formats: • **1/200**: a port range from 1 to 200 • **80/80**: port 80 • **-1/-1**: all ports
DestPortRange	String	Yes	80/80	The range of destination ports. Valid values: **1** to **65535** and **-1**. Set this parameter in one of the following formats: • **1/200**: a port range from 1 to 200 • **80/80**: port 80 • **-1/-1**: all ports
StartTime	String	No	2019-07-14T16:41:33+0800	The time when the traffic classification rule takes effect. Specify the time in the ISO 8601 standard in the YYYY-MM-DDThh:mm:ss+0800 format. The time must be in UTC+8.
EndTime	String	No	2019-09-14T16:41:33+0800	The time when the traffic classification rule becomes invalid. Specify the time in the ISO 8601 standard in the YYYY-MM-DDThh:mm:ss+0800 format. The time must be in UTC+8.
Name	String	No	nametest	The name of the traffic classification rule. The name must be 2 to 100 characters in length, and can contain digits, underscores (_), and hyphens (-). It must start with a letter.
DpiSignatureIds.N	String	No	1	The ID of the application. You can enter at most 100 application IDs at a time. You can call the ListDpiSignatures operation to query application IDs and information about the applications.
DpiGroupIds.N	String	No	20	The ID of the application group. You can enter at most 100 application group IDs at a time. You can call the ListDpiGroups operation to query application group IDs and information about the applications.

Response parameters

Parameter	Type	Example	Description
Description	String	desctest	The description of the traffic classification rule.
EndTime	String	2019-09-14T16:41:33+0800	The time when the traffic classification rule becomes invalid.
RequestId	String	97862812-2C7E-4D25-B0D5-B26DAC7FA293	The ID of the request.
QosPolicyId	String	qospy-xhwhyuo43l********	The ID of the traffic classification rule.
SourcePortRange	String	80/80	The range of source ports.
SourceCidr	String	10.10.10.0/24	The range of the source IP addresses.
Priority	Integer	3	The priority of the traffic throttling policy to which the traffic classification rule belongs.
StartTime	String	2019-07-14T16:41:33+0800	The time when the traffic classification rule becomes invalid.
DestPortRange	String	80/80	The range of destination ports.
DpiGroupIds	Array of String	20	The ID of the application group.
Name	String	nametest	The name of the traffic classification rule.
DestCidr	String	10.10.10.0/24	The range of the destination IP addresses.
DpiSignatureIds	Array of String	1	The IDs of applications.
QosId	String	qos-xitd8690ucu8ro****	The ID of the QoS policy.
IpProtocol	String	TCP	The type of the protocol that applies to the traffic classification rule.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateQosPolicy
&Description=desctest
&RegionId=cn-shanghai
&QosId=qos-xitd8690ucu8ro****
&Priority=3
&SourceCidr=10.10.10.0/24
&DestCidr=10.10.20.0/24
&IpProtocol=TCP
&SourcePortRange=80/80
&DestPortRange=80/80
&StartTime=2019-07-14T16:41:33+0800
&EndTime=2019-09-14T16:41:33+0800
&Name=nametest
&DpiSignatureIds=["1"]
&DpiGroupIds=["20"]
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateQosPolicyResponse>
    <Description>desctest</Description>
    <EndTime>2019-09-14T16:41:33+0800</EndTime>
    <RequestId>97862812-2C7E-4D25-B0D5-B26DAC7FA293</RequestId>
    <QosPolicyId>qospy-xhwhyuo43l********</QosPolicyId>
    <SourcePortRange>80/80</SourcePortRange>
    <SourceCidr>10.10.10.0/24</SourceCidr>
    <Priority>3</Priority>
    <StartTime>2019-07-14T16:41:33+0800</StartTime>
    <DestPortRange>80/80</DestPortRange>
    <DpiGroupIds>20</DpiGroupIds>
    <Name>nametest</Name>
    <DestCidr>10.10.10.0/24</DestCidr>
    <DpiSignatureIds>1</DpiSignatureIds>
    <QosId>qos-xitd8690ucu8ro****</QosId>
    <IpProtocol>TCP</IpProtocol>
</CreateQosPolicyResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "Description" : "desctest",
  "EndTime" : "2019-09-14T16:41:33+0800",
  "RequestId" : "97862812-2C7E-4D25-B0D5-B26DAC7FA293",
  "QosPolicyId" : "qospy-xhwhyuo43l********",
  "SourcePortRange" : "80/80",
  "SourceCidr" : "10.10.10.0/24",
  "Priority" : 3,
  "StartTime" : "2019-07-14T16:41:33+0800",
  "DestPortRange" : "80/80",
  "DpiGroupIds" : [ "20" ],
  "Name" : "nametest",
  "DestCidr" : "10.10.10.0/24",
  "DpiSignatureIds" : [ "1" ],
  "QosId" : "qos-xitd8690ucu8ro****",
  "IpProtocol" : "TCP"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	NotSupportedProtocol	The specified protocol of the QoS policy is not supported.	The error message returned because the QoS policy does not support the specified protocol.
400	InvalidId.Qos	The specified QosId is invalid.	The error message returned because the specified value of QosId is invalid.
400	QosPolicyPerQosAmountLimit	The maximum number of policies in a QoS is exceeded. You can submit a ticket to increase the quota.	The error message returned because the number of QoS rules that you have added to the QoS policy has reached the upper limit. You can submit a ticket to request a quota increase.
400	MissParameter.RegionId	You must specify RegionId.	The error message returned because the ID (RegionId) of the region is not specified.
400	MissParameter.QosId	You must specify QosId.	The error message returned because the ID (QosId) of the QoS policy is not specified.
400	MissParameter.QosPolicyId	You must specify QosPolicyId.	The error message returned because the ID (QosPolicyId) is not specified.
400	InvalidParameter.Priority	The specified Priority is invalid.	The error message returned because the specified priority (Priority) is invalid.
400	MissParameter.SourceCidr	You must specify SourceCidr.	The error message returned because the source CIDR block (SourceCidr) is not specified.
400	MissParameter.SourcePortRange	You must specify SourcePortRange.	The error message returned because the source port range (SourceRange) is not specified.
400	MissParameter.DestCidr	You must specify DestCidr.	The error message returned because the destination CIDR block (DestCidr) is not specified.
400	MissParameter.DestPortRange	You must specify DestPortRange.	The error message returned because the destination port range (DestPortRange) is not specified.
400	MissParameter.IpProtocol	You must specify IpProtocol.	The error message returned because the transport layer protocol (IpProtocol) is not specified.
400	InvalidParameter.Description	The specified Description is invalid.	The error message returned because the specified description is invalid.
400	InvalidParameter.DestCidr	The specified DestCidr is invalid.	The error message returned because the specified destination CIDR block (DestCidr) is invalid.
400	InvalidParameter.DestPortRange	The specified DestPortRange is invalid.	The error message returned because the specified destination port range (DestPortRange) is invalid.
400	InvalidParameter.SourceCidr	The specified SourceCidr is invalid.	The error message returned because the specified source CIDR block (SourceCidr) is invalid.

HttpCode	Error code	Error message	Description
400	InvalidParameter.SourcePortRange	The specified SourcePortRange is invalid.	The error message returned because the specified source port range (SourcePortRange) is invalid.
400	InvalidParameter.StartTime	The specified StartTime is invalid.	The error message returned because the specified start time (StartTime) is invalid.
400	InvalidParameter.EndTime	The specified EndTime is invalid.	The error message returned because the specified end time (EndTime) is invalid.
400	InvalidTimeRangeCompare	The specified end time is earlier than the start time. Please check your input.	The error message returned because the specified end time is earlier than the start time. Check whether the parameters are correctly set.
400	InvalidParameter.Name	The specified Name is invalid.	The error message returned because the specified name (QosName) of the QoS policy is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.
403	InvalidPortRange	The specified port range is invalid.	The error message returned because the specified port range is invalid.

For a list of error codes, visit the API Error Center.

9.6. ModifyQosPolicy

Modifies a traffic classification rule of a quality of service (QoS) policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyQosPolicy	The operation that you want to perform. Set the value to **ModifyQosPolicy**.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the QoS policy belongs.
QosId	String	Yes	qos-xitd8690ucu8ro****	The ID of the QoS policy.
QosPolicyId	String	Yes	qospy-427m9fo6wkh****	The ID of the traffic classification rule.
Priority	Integer	No	3	The priority of the traffic throttling policy to which the traffic classification rule belongs. Valid values: **1 to 3**. A smaller value indicates a higher priority.

Parameter	Type	Required	Example	Description
SourceCidr	String	No	10.10.10.0/24	The range of the source IP addresses. Specify the value of this parameter in CIDR notation. Example: 192.168.1.0/24.
DestCidr	String	No	10.10.20.0/24	The range of the destination IP addresses. Specify the value of this parameter in CIDR notation. Example: 192.168.10.0/24.
IpProtocol	String	No	TCP	The type of the protocol that applies to the traffic classification rule. The supported protocols provided in this topic are for reference only. The actual protocols in the console shall prevail.
SourcePortRange	String	No	1/200	The range of source ports. Valid values: **1** to **65535** and **-1**. Set this parameter in one of the following formats: • **1/200**: a port range from 1 to 200 • **80/80**: port 80 • **-1/-1**: all ports
DestPortRange	String	No	300/400	The range of destination ports. Valid values: **1** to **65535** and **-1**. Set this parameter in one of the following formats: • **1/200**: port 1 to port 200 • **80/80**: port 80 • **-1/-1**: all ports
StartTime	String	No	2019-07-14T16:41:33+0800	The time when the traffic classification rule takes effect. Specify the time in the ISO 8601 standard in the YYYY-MM-DDThh:mm:ss+0800 format. The time must be in UTC+8.
EndTime	String	No	2019-09-14T16:41:33+0800	The time when the traffic classification rule becomes invalid. Specify the time in the ISO 8601 standard in the YYYY-MM-DDThh:mm:ss+0800 format. The time must be in UTC+8.
Description	String	No	desctest	The description of the traffic classification rule. The description must be 1 to 512 characters in length, and can contain digits, underscores (_), and hyphens (-). It must start with a letter.

Parameter	Type	Required	Example	Description
Name	String	No	nametest	The name of the traffic classification rule. The name must be 2 to 100 characters in length, and can contain digits, underscores (_), and hyphens (-). It must start with a letter.
DpiSignatureIds.N	String	No	1	The ID of the application. You can enter at most 100 application IDs at a time. You can call the ListDpiSignatures operation to query application IDs and information about the applications.
DpiGroupIds.N	String	No	20	The ID of the application group. You can enter at most 100 application group IDs at a time. You can call the ListDpiGroups operation to query application group IDs and information about the applications.

Response parameters

Parameter	Type	Example	Description
RequestId	String	551CD836-9E46-4F2C-A167-B4363180A647	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyQosPolicy
&RegionId=cn-shanghai
&QosId=qos-xitd8690ucu8ro****
&QosPolicyId=qospy-427m9fo6wkh****
&Priority=3
&SourceCidr=10.10.10.0/24
&DestCidr=10.10.20.0/24
&IpProtocol=TCP
&SourcePortRange=1/200
&DestPortRange=300/400
&StartTime=2019-07-14T16:41:33+0800
&EndTime=2019-09-14T16:41:33+0800
&Description=desctest
&Name=nametest
&DpiSignatureIds=["1"]
&DpiGroupIds=["20"]
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ModifyQosPolicyRespon>
<RequestId>551CD836-9E46-4F2C-A167-B4363180A647</RequestId>
</ModifyQosPolicyRespon>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "551CD836-9E46-4F2C-A167-B4363180A647"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	MissParameter.RegionId	You must specify RegionId.	The error message returned because the ID (RegionId) of the region is not specified.
400	MissParameter.QosId	You must specify QosId.	The error message returned because the ID (QosId) of the QoS policy is not specified.
400	MissParameter.QosPolicyId	You must specify QosPolicyId.	The error message returned because the ID (QosPolicyId) of the QoS policy is not specified.
400	InvalidParameter.Description	The specified Description is invalid.	The error message returned because the specified description is invalid.
400	InvalidParameter.Priority	The specified Priority is invalid.	The error message returned because the specified priority (Priority) is invalid.
400	InvalidParameter.SourcePortRange	The specified SourcePortRange is invalid.	The error message returned because the specified source port range (SourcePortRange) is invalid.
400	InvalidParameter.DestCidr	The specified DestCidr is invalid.	The error message returned because the specified destination CIDR block (DestCidr) is invalid.
400	InvalidParameter.DestPortRange	The specified DestPortRange is invalid.	The error message returned because the specified destination port range (DestPortRange) is invalid.
400	InvalidParameter.SourceCidr	The specified SourceCidr is invalid.	The error message returned because the specified source CIDR block (SourceCidr) is invalid.
400	InvalidParameter.StartTime	The specified StartTime is invalid.	The error message returned because the specified start time (StartTime) is invalid.
400	InvalidParameter.EndTime	The specified EndTime is invalid.	The error message returned because the specified end time (EndTime) is invalid.
400	InvalidTimeRangeCompare	The specified end time is earlier than the start time. Please check your input.	The error message returned because the specified end time is earlier than the start time. Check whether the parameters are correctly set.

HttpCode	Error code	Error message	Description
400	InvalidId.QOSPY	The specified QosPolicyId is invalid.	The error message returned because the specified ID (QosPolicy) is invalid.
400	InvalidId.Qos	The specified QosId is invalid.	The error message returned because the specified value of QosId is invalid.
400	NotSupportedProtocol	The specified protocol of the QoS policy is not supported.	The error message returned because the QoS policy does not support the specified protocol.
400	InvalidParameter.Name	The specified Name is invalid.	The error message returned because the specified name (QosName) of the QoS policy is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.
403	InvalidPortRange	The specified port range is invalid.	The error message returned because the specified port range is invalid.

For a list of error codes, visit the API Error Center.

9.7. DeleteQosPolicy

Deletes a quintuple rule of a Quality of Service (QoS) policy.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
QosId	String	Yes	qos-wienf**********	The instance ID of the QoS policy.
QosPolicyId	String	Yes	qospy-xhwhyuo43l********	The ID of the quintuple rule.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the QoS policy belongs.
Action	String	No	DeleteQosPolicy	The name of this action. Value: **DeleteQosPolicy**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	551CD836-9E46-4F2C-A167-B4363180A647	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DeleteQosPolicy
&QosId=qos-wienf**************
&QosPolicyId=qospy-xhwhyuo43l********
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` format

```
<DeleteQosPolicyResponse>
   <RequestId>551CD836-9E46-4F2C-A167-B4363180A647</RequestId>
    </DeleteQosPolicyResponse>
```

`JSON` format

```
{
 "RequestId":"551CD836-9E46-4F2C-A167-B4363180A647"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	MissParameter.RegionId	You must specify RegionId.	You must specify the RegionId.
400	MissParameter.QosId	You must specify QosId.	You must specify the QosId.
400	MissParameter.QosPolicyId	You must specify QosPolicyId.	You must specify the QosPolicyId.
400	InvalidId.Qos	The specified QosId is invalid.	The specified QosId is invalid.
400	InvalidId.QOSPY	The specified QosPolicyId is invalid.	The specified QosPolicyId is invalid.
403	InternalError	An internal server error occurred.	An internal error occurred.

For a list of error codes, visit the API Error Center.

9.8. DescribeQosPolicies

You can call this operation to query rules that contain 5-tuples in quality of service (QoS) policies.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeQosPolicies	The operation that you want to perform. Set the value to **DescribeQosPolicies**.
QosId	String	Yes	qos-jdj**********	The ID of the QoS policy.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where the QoS policy is deployed.
QosPolicyId	String	No	qospy-xhwhyuo43l********	The ID of the 5-tuple.
Description	String	No	docdesc	The description of the 5-tuple.
PageSize	Integer	No	2	The number of entries to return on each page. Default value: **10**. Maximum value: **50**.
PageNumber	Integer	No	2	The number of the page to return. Pages start from page 1. Default value: **1**.
Priority	Integer	No	1	The priority of the QoS rule. A smaller value represents a higher priority. If rules have the same priority, the one applied earlier prevails. Valid values: 1 to 7.

Response parameters

Parameter	Type	Example	Description
RequestId	String	97862812-2C7E-4D25-B0D5-B26DAC7FA293	The ID of the request.
TotalCount	Integer	2	The total number of entries returned.
PageNumber	Integer	2	The page number of the returned page. Default value: **1**.
PageSize	Integer	2	The number of entries returned per page. Default value: **10**. Maximum value: **50**.
QosPolicies	Array		The information about the 5-tuples.
QosPolicyId	String	qospy-xhwhyuo43l********	The ID of the QoS rule.
QosId	String	qos-dw**********	The ID of the QoS policy.
Priority	Integer	3	The priority of the QoS rule.
Description	String	docdesc	The description of the QoS rule.
SourceCidr	String	10.XX.XX.0/24	The source CIDR block.
DestCidr	String	10.XX.XX.0/12	The destination CIDR block.

Parameter	Type	Example	Description
IpProtocol	String	TCP	The transport layer protocol.
SourcePortRange	String	80/80	The range of source ports.
DestPortRange	String	80/80	The range of destination ports.
StartTime	String	2019-07-14T16:41:33+0800	The time when the QoS rule takes effect.
EndTime	String	2019-07-14T16:41:33+0800	The time when the QoS rule expires.
Name	String	test	The name of the QoS rule. The name must be 2 to 100 characters in length, and can contain digits, hyphens (-), and underscores (_). It must start with a letter or Chinese character.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeQosPolicies
&QosId=qos-jdj************
&RegionId=cn-hangzhou
&<Common request parameter>
```

Sample success responses

`XML` format

```
<DescribeQosPoliciesResponse>
      <PageNumber>1</PageNumber>
      <PageSize>10</PageSize>
      <QosPolicies>
            <QosPolicy>
                  <Description>bvt-test</Description>
                  <DestCidr>10.XX.XX.0/24</DestCidr>
                  <DestPortRange>-1/-1</DestPortRange>
                  <IpProtocol>ALL</IpProtocol>
                  <Priority>1</Priority>
                  <QosId>qos-awfxl1adxeqyk*****</QosId>
                  <QosPolicyId>qospy-7h91hp3h9ykd*****</QosPolicyId>
                  <SourceCidr>192.168.0.0/24</SourceCidr>
                  <SourcePortRange>-1/-1</SourcePortRange>
            </QosPolicy>
            <QosPolicy>
                  <Description>bvt-test</Description>
                  <DestCidr>10.XX.XX.0/24</DestCidr>
                  <DestPortRange>80/80</DestPortRange>
                  <IpProtocol>TCP</IpProtocol>
                  <Priority>3</Priority>
                  <QosId>qos-awfxl1adxeqy*****</QosId>
                  <QosPolicyId>qospy-3avavlksll******</QosPolicyId>
                  <SourceCidr>192.168.2.0/24</SourceCidr>
                  <SourcePortRange>1/65535</SourcePortRange>
            </QosPolicy>
      </QosPolicies>
      <RequestId>A6B0BBEC-3101-4A98-9805-368B04956C02</RequestId>
      <TotalCount>2</TotalCount>
    </DescribeQosPoliciesResponse>
```

`JSON` format

```
{
    "PageNumber":1,
    "PageSize":10,
    "QosPolicies":{
        "QosPolicy":[
            {
                "Description":"bvt-test",
                "DestCidr":"10.XX.XX.0/24",
                "DestPortRange":"-1/-1",
                "IpProtocol":"ALL",
                "Priority":1,
                "QosId":"qos-awfxl1adxeqyk*****",
                "QosPolicyId":"qospy-7h91hp3h9ykd*****",
                "SourceCidr":"192.168.0.0/24",
                "SourcePortRange":"-1/-1"
            },
            {
                "Description":"bvt-test",
                "DestCidr":"10.XX.XX.0/24",
                "DestPortRange":"80/80",
                "IpProtocol":"TCP",
                "Priority":3,
                "QosId":"qos-awfxl1adxeqy*****",
                "QosPolicyId":"qospy-3avavlksll******",
                "SourceCidr":"192.168.2.0/24",
                "SourcePortRange":"1/65535"
            }
        ]
    },
    "RequestId":"A6B0BBEC-3101-4A98-9805-368B04956C02",
    "TotalCount":2
}
```


Error codes

HttpCode	Error code	Error message	Description
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because a required parameter is missing. Check whether you have set all required parameters.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a specified parameter is invalid.
400	InvalidId.Qos	The specified QosId is invalid.	The error message returned because the specified ID (QosId) of the QoS policy parameter is invalid.
403	InternalError	An internal server error occurred.	The error message returned because an internal error occurred.

For a list of error codes, visit the API Error Center.

9.9. CreateQosCar

Creates a traffic throttling rule for a quality of service (QoS) policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateQosCar	The operation that you want to perform. Set the value to **CreateQosCar**.
Description	String	No	Qosdesc	The description of the traffic throttling rule.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the QoS policy belongs.
QosId	String	Yes	qos-xitd8690ucu8ro****	The ID of the QoS policy.
Priority	Integer	Yes	2	The priority value of the traffic throttling rule. A smaller value specifies a higher priority. If multiple rules have the same priority, the rule that is applied first takes effect. Valid values: **1 to 7**.
LimitType	String	Yes	Absolute	The type of the traffic throttling rule. Valid values: • **Absolute**: throttles traffic based on a specific range of bandwidth. • **Percent**: throttles traffic based on a specific range of bandwidth percentage.
MinBandwidthAbs	Integer	Yes	2	The minimum bandwidth value. The value must be an integer. Unit: Mbit/s. This parameter is required when you set **LimitType** to **Absolute**.
MaxBandwidthAbs	Integer	Yes	6	The maximum bandwidth value. The value must be an integer. Unit: Mbit/s. This parameter is required when you set **LimitType** to **Absolute**. **Note** The maximum bandwidth value must be greater than the minimum bandwidth value.
MinBandwidthPercent	Integer	Yes	20	The minimum bandwidth percentage. Unit: percent (%). Valid values: **1 to 100**. This parameter is required when you set **LimitType** to **Percent**.

Parameter	Type	Required	Example	Description
MaxBandwidthPercent	Integer	Yes	90	The maximum bandwidth percentage. Unit: percent (%). Valid values: **1 to 100**. This parameter is required when you set **LimitType** to **Percent**. **Note** The maximum bandwidth percentage must be greater than the minimum bandwidth percentage.
PercentSourceType	String	No	CcnBandwidth	The type of bandwidth when traffic is throttled based on bandwidth percentage. Valid values: • **CcnBandwidth**: Cloud Connect Network (CCN) bandwidth • **InternetUpBandwidth**: total Internet bandwidth
Name	String	No	nametest	The name of the traffic throttling rule. The name must be 2 to 128 characters in length and can contain letters, digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter.

Response parameters

Parameter	Type	Example	Description
MinBandwidthAbs	Integer	2	The minimum bandwidth value. Unit: Mbit/s. This parameter is returned when **LimitType** is set to **Absolute**.
Description	String	Qosdesc	The description of the traffic throttling rule.
RequestId	String	AC13E8FF-4D61-40AD-868E-817F2D3AC86A	The ID of the request.
QosCarId	String	qoscar-n5k8g97lihlph****	The ID of the traffic throttling rule.
MaxBandwidthAbs	Integer	6	The maximum bandwidth value. Unit: Mbit/s. This parameter is returned when **LimitType** is set to **Absolute**.
MaxBandwidthPercent	Integer	90	The maximum bandwidth percentage. Unit: percent (%).
Priority	Integer	3	The priority value of the traffic throttling rule.
QosId	String	qos-xitd8690ucu8ro****	The ID of the QoS policy.

Parameter	Type	Example	Description
PercentSourceType	String	CcnBandwidth	The type of bandwidth when traffic is throttled based on bandwidth percentage. Valid values: • **CcnBandwidth**: CCN bandwidth • **InternetUpBandwidth**: total Internet bandwidth
MinBandwidthPercent	Integer	20	The minimum bandwidth percentage. Unit: percent (%).
LimitType	String	Percent	The type of the traffic throttling rule. Valid values: • **Absolute**: throttles traffic based on a specific range of bandwidth. • **Percent**: throttles traffic based on a specific range of bandwidth percentage.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateQosCar
&Description=Qosdesc
&RegionId=cn-hangzhou
&QosId=qos-xitd8690ucu8ro****
&Priority=2
&LimitType=Absolute
&MinBandwidthAbs=2
&MaxBandwidthAbs=6
&MinBandwidthPercent=20
&MaxBandwidthPercent=90
&PercentSourceType=CcnBandwidth
&Name=nametest
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateQosCarResponse>
    <MinBandwidthAbs>2</MinBandwidthAbs>
    <Description>Qosdesc</Description>
    <RequestId>AC13E8FF-4D61-40AD-868E-817F2D3AC86A</RequestId>
    <QosCarId>qoscar-n5k8g97lihlph****</QosCarId>
    <MaxBandwidthAbs>6</MaxBandwidthAbs>
    <MaxBandwidthPercent>90</MaxBandwidthPercent>
    <Priority>3</Priority>
    <QosId>qos-xitd8690ucu8ro****</QosId>
    <PercentSourceType>CcnBandwidth</PercentSourceType>
    <MinBandwidthPercent>20</MinBandwidthPercent>
    <LimitType>Percent</LimitType>
</CreateQosCarResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "MinBandwidthAbs" : 2,
  "Description" : "Qosdesc",
  "RequestId" : "AC13E8FF-4D61-40AD-868E-817F2D3AC86A",
  "QosCarId" : "qoscar-n5k8g97lihlph****",
  "MaxBandwidthAbs" : 6,
  "MaxBandwidthPercent" : 90,
  "Priority" : 3,
  "QosId" : "qos-xitd8690ucu8ro****",
  "PercentSourceType" : "CcnBandwidth",
  "MinBandwidthPercent" : 20,
  "LimitType" : "Percent"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	MissParameter.RegionId	You must specify RegionId.	The error message returned because the RegionId parameter is not set.
400	MissParameter.QosId	You must specify QosId.	The error message returned because the QosId parameter is not set.
400	MissParameter.LimitType	You must specify LimitType.	The error message returned because the LimitType parameter is not set.
400	MissParameter.Priority	You must specify Priority.	The error message returned because the Priority parameter is not set.
400	InvalidParameter.LimitType	You must specify LimitType.	The error message returned because the LimitType parameter is not set.
400	MissParameter.MaxBandwidthAbs	You must specify MaxBandwidthAbs.	The error message returned because the MaxBandwidthAbs parameter is not set.
400	MissParameter.MaxBandwidthPercent	You must specify MaxBandwidthPercent.	The error message returned because the MaxBandwidthPercent parameter is not set.
400	MissParameter.MinBandwidthAbs	You must specify MinBandwidthAbs.	The error message returned because the MinBandwidthAbs parameter is not set.
400	MissParameter.MinBandwidthPercent	You must specify MinBandwidthPercent.	The error message returned because the MinBandwidthPercent parameter is not set.
400	InvalidBandwidthCompare	The specified maximum bandwidth is smaller than the minimum bandwidth. Please check your input.	The error message returned because the maximum bandwidth is smaller than the minimum bandwidth. Check whether the parameters are correctly set.
400	MissParameter.PercentSourceType	You must specify PercentSourceType.	The error message returned because the PercentSourceType parameter is not set.
400	InvalidId.Qos	The specified QosId is invalid.	The error message returned because the QosId parameter is set to an invalid value.

HttpCode	Error code	Error message	Description
400	Invalid.QosCar.Priority	The specified priority of QosCarId is invalid.	The error message returned because the Priority parameter is set to an invalid value.
400	QosCarPerQosAmountLimit	The maximum number of QosCar in a QoS is exceeded. You can submit a ticket to increase the quota.	The error message returned because the number of traffic throttling rules that you have added to the QoS policy has reached the upper limit. Submit a ticket to request a quota increase.
400	InvalidParameter.Priority	The specified Priority is invalid.	The error message returned because the Priority parameter is set to an invalid value.
400	InvalidParameter.PercentSourceType	The specified PercentSourceType is invalid.	The error message returned because the PercentSourceType parameter is set to an invalid value.
400	InvalidParameter.Description	The specified Description is invalid.	The error message returned because the Description parameter is set to an invalid value.
400	InvalidParameter.LimitType	The specified LimitType is invalid.	The error message returned because the LimitType parameter is set to an invalid value.
400	InvalidParameter.Name	The specified Name is invalid.	The error message returned because the Name parameter is set to an invalid value.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error occurred.

For a list of error codes, visit the API Error Center.

9.10. ModifyQosCar

Modifies a traffic throttling rule in a quality of service (QoS) policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyQosCar	The operation that you want to perform. Set the value to **ModifyQosCar**.
Description	String	No	Qostest	The description of the traffic throttling rule.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the QoS policy belongs.
QosId	String	Yes	qos-awfxl1adxeqyk****	The ID of the QoS policy.

Parameter	Type	Required	Example	Description
QosCarId	String	Yes	qoscar-n5k8g97lihlph****	The ID of the traffic throttling rule.
Priority	Integer	No	2	The priority value of the traffic throttling rule. A smaller value specifies a higher priority. If multiple rules have the same priority, the rule that is applied first takes effect. Valid values: **1 to 7**.
LimitType	String	No	Absolute	The type of the traffic throttling rule. Valid values: • **Absolute**: throttles traffic based on a specific range of bandwidth. • **Percent**: throttles traffic based on a specific range of bandwidth percentage.
MinBandwidthAbs	Integer	No	2	The minimum bandwidth value. The value must be an integer. Unit: Mbit/s. This parameter is required when you set **LimitType** to **Absolute**.
MaxBandwidthAbs	Integer	No	6	The maximum bandwidth value. The value must be an integer. Unit: Mbit /s. This parameter is required when you set **LimitType** to **Absolute**. **Note** The maximum bandwidth value must be greater than the minimum bandwidth value.
MinBandwidthPercent	Integer	No	20	The minimum bandwidth percentage. Unit: percent (%). Valid values: **1 to 100**. This parameter is required when you set **LimitType** to **Percent**.
MaxBandwidthPercent	Integer	No	90	The maximum bandwidth percentage. Unit: percent (%). Valid values: **1 to 100**. This parameter is required when you set **LimitType** to **Percent**. **Note** The maximum bandwidth percentage must be greater than the minimum bandwidth percentage.
PercentSourceType	String	No	CcnBandwidth	The type of bandwidth when traffic is throttled based on bandwidth percentage. Valid values: • **CcnBandwidth**: Cloud Connect Network (CCN) bandwidth • **InternetUpBandwidth**: total Internet bandwidth

Parameter	Type	Required	Example	Description
Name	String	No	nametest	The name of the traffic throttling rule. The name must be 2 to 128 characters in length and can contain letters, digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter.

Response parameters

Parameter	Type	Example	Description
RequestId	String	551CD836-9E46-4F2C-A167-B4363180A647	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyQosCar
&Description=Qostest
&RegionId=cn-hangzhou
&QosId=qos-awfxl1adxeqyk****
&QosCarId=qoscar-n5k8g97lihlph****
&Priority=2
&LimitType=Absolute
&MinBandwidthAbs=2
&MaxBandwidthAbs=6
&MinBandwidthPercent=20
&MaxBandwidthPercent=90
&PercentSourceType=CcnBandwidth
&Name=nametest
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ModifyQosCarResponse>
    <RequestId>551CD836-9E46-4F2C-A167-B4363180A647</RequestId>
</ModifyQosCarResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "551CD836-9E46-4F2C-A167-B4363180A647"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	MissParameter.RegionId	You must specify RegionId.	The error message returned because the RegionId parameter is not set.

HttpCode	Error code	Error message	Description
400	MissParameter.QosCarId	You must specify QosCarId.	The error message returned because the QosCarId parameter is not set.
400	MissParameter.QosId	You must specify QosId.	The error message returned because the QosId parameter is not set.
400	InvalidParameter.Description	You must specify Description.	The error message returned because the Description parameter is not set.
400	MissParameter.MaxBandwidthAbs	You must specify MaxBandwidthAbs.	The error message returned because the MaxBandwidthAbs parameter is not set.
400	MissParameter.MaxBandwidthPercent	You must specify MaxBandwidthPercent.	The error message returned because the MaxBandwidthPercent parameter is not set.
400	MissParameter.MinBandwidthAbs	You must specify MinBandwidthAbs.	The error message returned because the MinBandwidthAbs parameter is not set.
400	MissParameter.MinBandwidthPercent	You must specify MinBandwidthPercent.	The error message returned because the MinBandwidthPercent parameter is not set.
400	InvalidBandwidthCompare	The specified maximum bandwidth is smaller than the minimum bandwidth. Please check your input.	The error message returned because the maximum bandwidth is smaller than the minimum bandwidth. Check whether the parameters are correctly set.
400	MissParameter.PercentSourceType	You must specify PercentSourceType.	The error message returned because the PercentSourceType parameter is not set.
400	InvalidParameter.Priority	The specified Priority is invalid.	The error message returned because the Priority parameter is set to an invalid value.
400	InvalidParameter.PercentSourceType	The specified PercentSourceType is invalid.	The error message returned because the PercentSourceType parameter is set to an invalid value.
400	InvalidParameter.Name	The specified Name is invalid.	The error message returned because the Name parameter is set to an invalid value.
400	InvalidParameter.Description	The specified Description is invalid.	The error message returned because the Description parameter is set to an invalid value.

For a list of error codes, visit the API Error Center.

9.11. DeleteQosCar

Deletes a speed limiting rule of a Quality of Service (QoS) policy.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
QosCarId	String	Yes	qoscar-n5k8g97lihlph*****	The instance ID of the QoS speed limiting rule.
QosId	String	Yes	qos-awfxl1adxeqyk*****	The instance ID of the QoS policy.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the QoS policy belongs.
Action	String	No	DeleteQosCar	The name of this action. Value: **DeleteQosCar**.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	551CD836-9E46-4F2C-A167-B4363180A647	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DeleteQosCar
&QosCarId=qoscar-n5k8g97lihlph*****
&QosId=qos-awfxl1adxeqyk*****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` format

```
<DeleteQosCarResponse>
   <RequestId>551CD836-9E46-4F2C-A167-B4363180A647</RequestId>
    </DeleteQosCarResponse>
```

`JSON` format

```
{
 "RequestId":"551CD836-9E46-4F2C-A167-B4363180A647"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	InvalidId.Qos	The specified QosId is invalid.	The specified QosId is invalid.
400	InvalidId.QOSCAR	The specified QosCarId is invalid.	The specified QosCarId is invalid.
403	InternalError	An internal server error occurred.	An internal error occurred.
400	MissParameter.RegionId	You must specify RegionId.	You must specify the RegionId.
400	MissParameter.QosCarId	You must specify QosCarId.	You must specify the QosCarId.

HTTP status code	Error code	Error message	Description
400	MissParameter.QosId	You must specify QosId.	You must specify the QosId.

For a list of error codes, visit the API Error Center.

9.12. AssociateQos

Applies a Quality of Service (QoS) policy to a Smart Access Gateway (SAG) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
QosId	String	Yes	qos-awfxl1adxeqyk****	The instance ID of the QoS policy.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the QoS policy belongs.
SmartAGId	String	Yes	sag-c3m3n1khz58l******	The ID of the SAG instance to which the QoS policy is to be applied.
Action	String	No	AssociateQos	The name of this action. Value: **AssociateQos**.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	551CD836-9E46-4F2C-A167-B4363180A647	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=AssociateQos
&QosId=qos-awfxl1adxeqyk****
&RegionId=cn-hangzhou
&SmartAGId=sag-c3m3n1khz58l******
&<CommonParameters>
```

Response example

`XML` format

```
<AssociateQosResponse>
   <RequestId>551CD836-9E46-4F2C-A167-B4363180A647</RequestId>
    </AssociateQosResponse>
```

`JSON` format

```
{
 "RequestId": "551CD836-9E46-4F2C-A167-B4363180A647"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	SmartAGAlreadyAssociateQos	The specified smart access gateway has already been associated with the specified QoS.	The specified SAG instance is already associated with another QoS policy.
403	InternalError	An internal server error occurred.	An internal error has occurred.
400	InvalidId.Qos	The specified QosId is invalid.	The specified QosId is invalid.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	SAG software instances do not support ACL.
400	QosPerSmartagAmountLimit	No more QoS can be associated with this smart access gateway.	The specified SAG instance cannot be associated with more QoS policies.
400	MissParameter.RegionId	You must specify RegionId.	You must specify the RegionId.
400	MissParameter.QosId	You must specify QosId.	You must specify the QosId.
400	MissParameter.SmartAGId	You must specify SmartAGId.	You must specify the SmartAGId.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The specified SmartAGId is invalid.

For a list of error codes, visit the API Error Center.

9.13. DisassociateQos

Disassociates a Smart Access Gateway (SAG) instance from a Quality of Service (QoS) policy.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
QosId	String	Yes	qos-1lcl9gv5ew7x******	The instance ID of the QoS policy.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the QoS policy belongs.
SmartAGId	String	Yes	sag-c3m3n1khz58l******	The ID of the SAG instance to be disassociated.
Action	String	No	DisassociateQos	The name of this action. Value: **DisassociateQos**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	551CD836-9E46-4F2C-A167-B4363180A647	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DisassociateQos
&QosId=qos-1lcl9gv5ew7x******
&RegionId=cn-hangzhou
&SmartAGId=sag-c3m3n1khz581******
&<CommonParameters>
```

Response example

`XML` format

```
<DisassociateQosResponse>
   <RequestId>551CD836-9E46-4F2C-A167-B4363180A647</RequestId>
    </DisassociateQosResponse>
```

`JSON` format

```
{
 "RequestId":"551CD836-9E46-4F2C-A167-B4363180A647"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	MissParameter.RegionId	You must specify RegionId.	You must specify the RegionId.
400	MissParameter.QosId	You must specify QosId.	You must specify the QosId.
400	MissParameter.SmartAGId	You must specify SmartAGId.	You must specify the SmartAGId.
403	InternalError	An internal server error occurred.	An internal error has occurred.
400	InvalidId.Qos	The specified QosId is invalid.	The specified QosId is invalid.
400	SmartAGNotAssociateQos	The specified smart access gateway is not associated with the specified QoS.	The specified QoS policy is not associated with any SAG instance.
403	InvalidId.SMARTAG	The specified smart access gateway instance id is invalid.	The specified SmartAGId is invalid.

For a list of error codes, visit the API Error Center.

9.14. DescribeQosCars

Queries traffic throttling rules of a quality of service (QoS) policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeQosCars	The operation that you want to perform. Set the value to **DescribeQosCars**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the QoS policy is created. You can call the DescribeRegions operation to query the most recent region list.
QosId	String	Yes	qos-awfxl1adxeqyk****	The ID of the QoS policy.
QosCarId	String	No	qoscar-n5k8g97lihlph****	The ID of the traffic throttling rule.
Order	String	No	asc	The sorting method of the traffic throttling rules. Valid values: • **asc**: sorted in ascending order. This is the default value. • **desc**: sorted in descending order. By default, traffic throttling rules are sorted in ascending order of priority.
Description	String	No	testdesc	The description of the traffic throttling rule.
PageSize	Integer	No	10	The number of entries to return per page. Valid values: **1** to **50**. Default value: **10**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	10	The total number of entries returned.
QosCars	Array of QosCar		The list of traffic throttling rules.
QosCar			
MaxBandwidthAbs	Integer	6	The maximum bandwidth. Unit: **Mbit/s**.
PercentSourceType	String	CcnBandwidth	The bandwidth type when traffic is throttled based on bandwidth percentage. • **CcnBandwidth**: Cloud Connect Network (CCN) bandwidth. • **InternetUpBandwidth**: Internet upstream bandwidth.

Parameter	Type	Example	Description
MinBandwidthAbs	Integer	2	The minimum bandwidth. Unit: **Mbit/s**.
MaxBandwidthPercent	Integer	90	The maximum bandwidth percentage.
Description	String	des	The description of the traffic throttling rule.
QosId	String	qos-awfxl1adxeqyk****	The ID of the QoS policy.
LimitType	String	Absolute	The type of traffic throttling. Valid values: • **Absolute**: throttles traffic based on a specific range of bandwidth. • **Percent**: throttles traffic based on a specific range of bandwidth percentage.
Priority	Integer	3	The priority of the rule.
Name	String	name	The name of the traffic throttling rule.
MinBandwidthPercent	Integer	20	The minimum bandwidth percentage.
QosCarId	String	qos-awfxl1adxeqyk****	The ID of the traffic throttling rule.
PageSize	Integer	10	The number of entries returned on each page.
RequestId	String	B7B758A9-009E-4C9D-9618-714EAE8BA5E9	The ID of the request.
PageNumber	Integer	1	The number of the returned page.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeQosCars
&RegionId=cn-shanghai
&QosId=qos-awfxl1adxeqyk****
&QosCarId=qoscar-n5k8g97lihlph****
&Order=asc
&Description=testdesc
&PageSize=10
&PageNumber=1
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeQosCarsResponse>
    <TotalCount>10</TotalCount>
    <QosCars>
        <MaxBandwidthAbs>6</MaxBandwidthAbs>
        <PercentSourceType>CcnBandwidth</PercentSourceType>
        <MinBandwidthAbs>2</MinBandwidthAbs>
        <MaxBandwidthPercent>90</MaxBandwidthPercent>
        <Description>des</Description>
        <QosId>qos-awfxl1adxeqyk****</QosId>
        <LimitType> Absolute</LimitType>
        <Priority>3</Priority>
        <Name>name</Name>
        <MinBandwidthPercent>20</MinBandwidthPercent>
        <QosCarId>qos-awfxl1adxeqyk****</QosCarId>
    </QosCars>
    <PageSize>10</PageSize>
    <RequestId>B7B758A9-009E-4C9D-9618-714EAE8BA5E9</RequestId>
    <PageNumber>1</PageNumber>
</DescribeQosCarsResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 10,
  "QosCars" : [ {
    "MaxBandwidthAbs" : 6,
    "PercentSourceType" : "CcnBandwidth",
    "MinBandwidthAbs" : 2,
    "MaxBandwidthPercent" : 90,
    "Description" : "des",
    "QosId" : "qos-awfxl1adxeqyk****",
    "LimitType" : " Absolute",
    "Priority" : 3,
    "Name" : "name",
    "MinBandwidthPercent" : 20,
    "QosCarId" : "qos-awfxl1adxeqyk****"
  } ],
  "PageSize" : 10,
  "RequestId" : "B7B758A9-009E-4C9D-9618-714EAE8BA5E9",
  "PageNumber" : 1
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidId.Qos	The specified QosId is invalid.	The error message returned because the specified value of QosId is invalid.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a parameter is set to an invalid value.

HttpCode	Error code	Error message	Description
403	InternalError	An internal server error occurred.	The error message returned because an internal server error occurred.

For a list of error codes, visit the Error Center.

9.15. GetQosAttribute

Queries attributes of quality of service (QoS) policies

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetQosAttribute	The operation that you want to perform. Set the value to **GetQosAttribute**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the QoS policy is deployed. You can call the DescribeRegions operation to query the most recent region list.
QosId	String	Yes	qos-1iqifund3gcno5****	The ID of the QoS policy.

Response parameters

Parameter	Type	Example	Description
QosPolicies	Array of QosPolicy		List of QoS policies based on 5-tuple.
EndTime	Long	2021-07-29T00:00:00+0800	The end time of the valid time of the 5-tuple. The time must be in UTC+8.
StartTime	Long	2021-06-21T00:00:00+0800	The start time of the valid time of the 5-tuple.
DestCidr	String	0.0.0.0/0	The range of the destination CIDR block.
DestPortRange	String	-1/-1	The range of destination ports. Valid values: **1** to **65535** and **-1**. Examples of the format of the destination port range: • **1/200**: a port range from 1 to 200. • **80/80**: port 80. • **-1/-1**: all ports.
IpProtocol	String	ALL	The type of the protocol that is applied to the 5-tuple rule.

Parameter	Type	Example	Description
Priority	Integer	1	The priority of the traffic throttling rule that is applied to the 5-tuple.rule. A smaller value indicates a higher priority.
QosPolicieDescription	String	test	The description of the 5-tuple.
SourceCidr	String	0.0.0.0/0	The range of the source CIDR block.
QosPolicieName	String	test	The name of the 5-tuple.
SourcePortRange	String	-1/-1	The range of source ports. Valid values: **1** to **65535** and **-1**. Examples of the format of the source port range: • **1/200**: a port range from 1 to 200. • **80/80**: port 80. • **-1/-1**: all ports.
QosCars	Array of QosCar		The traffic throttling rule applied to the QoS policies that have exceptional configurations.
MaxBandwidthAbs	Integer	2	The maximum bandwidth. Unit: Mbit/s.
QosCarName	String	test	The name of the traffic throttling rule.
PercentSourceType	String	InternetUpBandwidth	Bandwidth type when traffic is throttled to a percentage of the total bandwidth of the network. • **CcnBandwidth**: Cloud Connect Network (CCN) bandwidth. • **InternetUpBandwidth**: Internet upstream bandwidth.
MinBandwidthAbs	Integer	1	The minimum bandwidth. Unit: Mbit/s.
MaxBandwidthPercent	Integer	20	The maximum bandwidth percentage that the traffic is throttled to.
QosCarDescription	String	test	The description of the traffic throttling rule.
LimitType	String	Absolute	The type of traffic throttling. Valid values: • **Absolute**: throttles traffic based on a specific range of bandwidth. • **Percent**: throttles traffic based on a specific range of bandwidth percentage.

Parameter	Type	Example	Description
Priority	Integer	1	The priority of the traffic throttling rule. Valid values are from **1** to **3**. A smaller value indicates a higher priority.
MinBandwidthPercent	Integer	10	The minimum bandwidth percentage.
QosCarId	String	qoscar-xir1apa8ayjp56ei****	The ID of the traffic throttling rule.
RequestId	String	91058E01-1806-45D5-B305-19E4D0A5CE04	The ID of the request.
ErrorConfigSmartAGCount	Integer	1	The number of Smart Access Gateway (SAG) instances that have exceptional configurations.
QosName	String	test	The name of the QoS policy.
QosDescription	String	test	The description of the QoS policy.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=GetQosAttribute
&RegionId=cn-shanghai
&QosId=qos-1iqifund3gcno5****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<GetQosAttributeResponse>
    <QosPolicies>
        <DestCidr>0.0.0.0/0</DestCidr>
        <SourcePortRange>-1/-1</SourcePortRange>
        <SourceCidr>0.0.0.0/0</SourceCidr>
        <Priority>1</Priority>
        <IpProtocol>ALL</IpProtocol>
        <DestPortRange>-1/-1</DestPortRange>
    </QosPolicies>
    <QosCars>
        <MinBandwidthAbs>1</MinBandwidthAbs>
        <QosCarId>qoscar-xir1apa8ayjp56ei****</QosCarId>
        <Priority>1</Priority>
        <MaxBandwidthAbs>2</MaxBandwidthAbs>
        <PercentSourceType>InternetUpBandwidth</PercentSourceType>
        <LimitType>Absolute</LimitType>
    </QosCars>
    <RequestId>91058E01-1806-45D5-B305-19E4D0A5CE04</RequestId>
    <ErrorConfigSmartAGCount>1</ErrorConfigSmartAGCount>
    <QosName>ccn-yaochi-bvt-qos</QosName>
</GetQosAttributeResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "QosPolicies" : [ {
    "DestCidr" : "0.0.0.0/0",
    "SourcePortRange" : "-1/-1",
    "SourceCidr" : "0.0.0.0/0",
    "Priority" : 1,
    "IpProtocol" : "ALL",
    "DestPortRange" : "-1/-1"
  } ],
  "QosCars" : [ {
    "MinBandwidthAbs" : 1,
    "QosCarId" : "qoscar-xir1apa8ayjp56ei****",
    "Priority" : 1,
    "MaxBandwidthAbs" : 2,
    "PercentSourceType" : "InternetUpBandwidth",
    "LimitType" : "Absolute"
  } ],
  "RequestId" : "91058E01-1806-45D5-B305-19E4D0A5CE04",
  "ErrorConfigSmartAGCount" : 1,
  "QosName" : "ccn-yaochi-bvt-qos"
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.Flow logs

10.1. CreateFlowLog

Creates a flow log.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateFlowLog	The operation that you want to perform. Set the value to **CreateFlowLog**.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the flow log belongs. You can call the DescribeRegions operation to query the most recent region list.
Description	String	No	test	The description of the flow log.
Name	String	No	sag-flowlog-1	The name of the flow log.
ActiveAging	Integer	No	300	The output interval under active connections. Valid values: **60 to 6000**. Unit: seconds. Default value: **300**.
InactiveAging	Integer	No	15	The output interval under inactive connections. Valid values: **10 to 600**. Unit: seconds. Default value: **15**.
OutputType	String	Yes	all	The type of the flow log. Valid values: • **sls**: The flow log is stored in Log Service. • **netflow**: The flow log is stored on a NetFlow collector. • **all**: The flow log is stored both in Log Service and on a NetFlow collector.
SlsRegionId	String	No	cn-shanghai	The ID of the region where Log Service is deployed. If OutputType is set to **sls** or **all**, this parameter is required.
ProjectName	String	No	sag-flowlog-shanghai	The project in Log Service. If OutputType is set to **sls** or **all**, this parameter is required.

Parameter	Type	Required	Example	Description
LogstoreName	String	No	config-operation-log	The Logstore in Log Service. If OutputType is set to **sls** or **all**, this parameter is required.
NetflowServerIp	String	No	192.168.0.2	The IP address of the NetFlow collector where the flow log is stored. If OutputType is set to **netflow** or **all**, this parameter is required.
NetflowServerPort	Integer	No	9995	The port number of the NetFlow collector where the flow log is stored. Default value: **9995**. If OutputType is set to **netflow** or **all**, this parameter is required.
NetflowVersion	String	No	V9	The version of the NetFlow collector where the flow log is stored. Valid values: **V5**, **V9**, and **V10**. Default value: **V9**. If OutputType is set to **netflow** or **all**, this parameter is required.

Response parameters

Parameter	Type	Example	Description
RequestId	String	650CB9E8-20F3-4538-A4FC-1DA1B36E42D9	The ID of the request.
FlowLogId	String	fl-7a56mar1kfw9vj****	The ID of the flow log.
ResourceGroupId	String	rg-acfm2iu4f****	The ID of the resource group to which the flow log belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateFlowLog
&RegionId=cn-shanghai
&Description=test
&Name=sag-flowlog-1
&ActiveAging=300
&InactiveAging=15
&OutputType=all
&SlsRegionId=cn-shanghai
&ProjectName=sag-flowlog-shanghai
&LogstoreName=config-operation-log
&NetflowServerIp=192.168.0.2
&NetflowServerPort=9995
&NetflowVersion=V9
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateFlowLogResponse>
    <RequestId>650CB9E8-20F3-4538-A4FC-1DA1B36E42D9</RequestId>
    <FlowLogId>fl-7a56mar1kfw9vj****</FlowLogId>
    <ResourceGroupId>rg-acfm2iu4f****</ResourceGroupId>
</CreateFlowLogResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "650CB9E8-20F3-4538-A4FC-1DA1B36E42D9",
  "FlowLogId" : "fl-7a56mar1kfw9vj****",
  "ResourceGroupId" : "rg-acfm2iu4f****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The error message returned because the flow log is associated with a resource.
400	IncorrectStatus.FlowLog	The current FlowLog instance status does not support this operation.	The error message returned because the status of the flow log does not support this operation.
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The error message returned because the specified flow log ID (FlowLogId) is invalid.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	The error message returned because the ID (FlowLogId) of the flow log is not specified.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The error message returned because the specified Smart Access Gateway (SAG) instance is associated with another flow log.
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The error message returned because the version or model of the SAG device does not support this operation.
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The error message returned because the number of flow logs that you specified has reached the upper limit.
400	MissingParam.LogstoreName	Specify the LogstoreName parameter.	The error message returned because the name (LogstoreName) of the Logstore is not specified.
400	MissingParam.NetflowServerIp	Specify the NetflowServerIp parameter.	The error message returned because the IP address (NetflowServerIp) of the server where the flow log is stored is not specified.

HttpCode	Error code	Error message	Description
400	MissingParam.NetflowServerPort	Specify the NetflowServerPort parameter.	The error message returned because the port (NetflowServerPort) of the NetFlow collector is not specified.
400	MissingParam.NetflowVersion	Specify the NetflowVersion parameter.	The error message returned because the NetFlow version (NetflowVersion) is not specified.
400	MissingParam.ProjectName	Specify the ProjectName parameter.	The error message returned because the name (ProjectName) of the Log Service project is not specified.
400	MissingParam.SlsRegionId	Specify the SlsRegionId parameter.	The error message returned because the ID (SlsRegionId) of the region where Log Service is deployed is not specified.
400	IllegalParam.ActiveAging	The specified ActiveAging is invalid.	The error message returned because the specified time interval (ActiveAging) at which log data of active connections is collected is invalid.
400	IllegalParam.InactiveAging	The specified InactiveAging is invalid.	The error message returned because the specified time interval (InactiveAging) at which log data of inactive connections is collected is invalid.
400	IllegalParam.NetflowServerIp	The specified NetflowServerIp is invalid.	The error message returned because the specified IP address (NetflowServerIp) of the NetFlow collector is invalid.
400	IllegalParam.NetflowServerPort	The specified NetflowServerPort is invalid.	The error message returned because the specified port (NetflowServerPort) of the NetFlow collector is invalid.
400	IllegalParam.NetflowVersion	The specified NetflowVersion is invalid.	The error message returned because the specified NetFlow version (NetflowVersion) is invalid.
400	IllegalParam.OutputType	The specified OutputType is invalid.	The error message returned because the specified storage location (OutputType) of the flow log is invalid.
400	IllegalParam.RegionId	The specified RegionId is invalid.	The error message returned because the specified ID (RegionId) of the region is invalid.
400	IllegalParam.SlsRegionId	The specified SlsRegionId is invalid.	The error message returned because the specified ID (SlsRegionId) of the region where Log Service is deployed is invalid.
400	IllegalParam.Status	The specified Status parameter is invalid.	The error message returned because the specified status (Status) of the flow log is invalid.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

10.2. ModifyFlowLogAttribute

Modifies the attributes of a flow log.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Description	String	Yes	flow log 1	The description of the flow log.
FlowLogId	String	Yes	fl-7a56mar1kfw9vj****	The instance ID of the flow log.
InactiveAging	Integer	Yes	15	The time interval between two flow log records for non-persistent network connections. Default value: 15. Unit: seconds
LogstoreName	String	Yes	ssfghgh	The Logstore where the flow log is stored. This parameter is required when the value of the OutputType parameter is sls or all.
Name	String	Yes	DDE	The name of the flow log.
NetflowServerIp	String	Yes	192.168.0.2	The IP address of the NetFlow server where the flow log is stored. This parameter is required when the value of the OutputType parameter is netflow or all.
NetflowServerPort	Integer	Yes	9995	The NetFlow server port to which the flow log is published. Default value: **9995**. This parameter is required when the value of the OutputType parameter is netflow or all.
NetflowVersion	String	Yes	V9	The NetFlow protocol used when the flow log is published. Valid values: **V5** | **V9** | **V10**. Default value: **V9**. This parameter is required when the value of the OutputType parameter is netflow or all.
OutputType	String	Yes	sls	The type of the flow log. • **sls**: Store the flow log in Alibaba Cloud Log Service. • **netflow**: Store the flow log in a specified NetFlow server. • **all**: Store the flow log in Log Service and NetFlow server.
ProjectName	String	Yes	ddrrgt	The Project where the flow log is stored. This parameter is required when the value of the OutputType parameter is sls or all.

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-shanghai	The ID of the region to which the flow log belongs.
SlsRegionId	String	Yes	cn-shanghai	The region ID of the Log Service. This parameter is required when the value of the OutputType parameter is sls or all.
Action	String	No	ModifyFlowLogAttribute	The name of this action. Value: **ModifyFlowLogAttribute**
ActiveAging	Integer	No	300	The time interval between two flow log records for persistent network connections. Default value: 300. Unit: seconds

Response parameters

Parameter	Type	Example value	Description
RequestId	String	AAC70A63-1A2E-4857-9CA3-5DE5B4041D1E	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=ModifyFlowLogAttribute
&Description=flow log 1
&FlowLogId=fl-7a56mar1kfw9vj****
&InactiveAging=15
&LogstoreName=ssfghgh
&Name=DDE
&NetflowServerIp=192.168.0.2
&NetflowServerPort=9995
&NetflowVersion=V9
&OutputType=sls
&ProjectName=ddrrgt
&RegionId=cn-shanghai
&SlsRegionId=cn-shanghai
&<CommonParameters>
```

Response example

`XML` format

```
<ModifyFlowLogAttributeResponse>
   <RequestId>AAC70A63-1A2E-4857-9CA3-5DE5B4041D1E</RequestId>
    </ModifyFlowLogAttributeResponse>
```

`JSON` format

```
{
 "RequestId":"AAC70A63-1A2E-4857-9CA3-5DE5B4041D1E"
}
```

Errors

HTTP status code	Error code	Error message	Description
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The version of the SAG device does not support this function.
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The flow log has dependencies.
400	IncorrectStatus.FlowLog	The current FlowLog instance status does not support this operation.	The status of the flow log does not permit this operation.
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The specified FlowLogId does not exist.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	You must specify the FlowLogId.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The operation failed because the SAG instance is associated with another flow log.
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The version or model of the SAG device does not support the associating of flow logs.
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The number of flow logs has reached the quota.
400	IllegalParam.ActiveAging	The specified ActiveAging is invalid.	The specified ActiveAging is invalid.
400	IllegalParam.InactiveAging	The specified InactiveAging is invalid.	The specified InactiveAging is invalid.
400	IllegalParam.OutputType	The specified OutputType is invalid.	The specified OutputType is invalid.
400	IllegalParam.NetflowServerIp	The specified NetflowServerIp is invalid.	The specified NetflowServerIp is invalid.
400	IllegalParam.NetflowServerPort	The specified NetflowServerPort is invalid.	The specified NetflowServerPort is invalid.
400	IllegalParam.NetflowVersion	The specified NetflowVersion is invalid.	The specified NetflowVersion is invalid.
400	MissingParam.NetflowServerIp	Specify the NetflowServerIp parameter.	You must specify the NetflowServerIp.
400	MissingParam.NetflowServerPort	Specify the NetflowServerPort parameter.	You must specify the NetflowServerPort.
400	MissingParam.NetflowVersion	Specify the NetflowVersion parameter.	You must specify the NetflowVersion.
400	IllegalParam.SlsRegionId	The specified SlsRegionId is invalid.	The specified SlsRegionId is invalid.
400	MissingParam.SlsRegionId	Specify the SlsRegionId parameter.	You must specify the SlsRegionId.
400	IllegalParam.RegionId	The specified RegionId is invalid.	The specified RegionId is invalid.
400	IllegalParam.Status	The specified Status parameter is invalid.	The specified Status is invalid.
400	InvalidSmartAGId.NotFound	The specified SmartAGId does not exist.	The specified SmartAGId does not exist.

For a list of error codes, visit the API Error Center.

10.3. DescribeFlowLogs

Queries flow logs in a specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeFlowLogs	The operation that you want to perform. Set the value to **DescribeFlowLogs**.
RegionId	String	Yes	cn-shanghai	The ID of the region that the flow logs are stored.
FlowLogId	String	No	fl-7a56mar1kfw9vj****	The ID of a flow log.
FlowLogName	String	No	DDE	The name of the flow log.
Description	String	No	desc	The description of the flow log.
Status	String	No	Active	The status of the flow log. Valid values: • **Active**: The flow log is enabled. • **Inactive**: The flow log is disabled.
OutputType	String	No	all	The location where the flow log is stored. Valid values: • **sls**: The flow log is stored in Log Service. • **netflow**: The flow log is stored on a NetFlow collector. • **all**: The flow log is stored both in Log Service and on a NetFlow collector.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	5	The total number of flow logs.

Parameter	Type	Example	Description
FlowLogs	Array of FlowLogSetType		The list of flow logs.
FlowLogSetType			
Status	String	Active	The status of the flow log. Valid values: • **Active**: The flow log is enabled. • **Inactive**: The flow log is disabled.
TotalSagNum	Integer	2	The number of Smart Access gateway (SAG) instances with which the flow log is associated.
NetflowServerIp	String	192.168.0.1	The address of the NetFlow collector where the flow log is stored.
ProjectName	String	sag-flowlog-shanghai	The name of the Log Service project.
SlsRegionId	String	cn-shanghai	The ID of the region that the Log Service is deployed.
ActiveAging	Integer	300	The output interval under active connections. Unit: seconds.
OutputType	String	sls	The location where the flow log is stored. Valid values: • **sls**: The flow log is stored in Log Service. • **netflow**: The flow log is stored on a NetFlow collector. • **all**: The flow log is stored both in Log Service and on a NetFlow collector.
Description	String	aaa	The description of the flow log.
NetflowVersion	String	V9	The protocol version number of the NetFlow collector that stores the flow log. Default value: **V9**.
InactiveAging	Integer	15	The output interval under inactive connections. Unit: seconds.
NetflowServerPort	String	9995	The port number of the NetFlow collector that stores the flow log. Default value: **9995**.
Name	String	DDE	The name of the flow log.
FlowLogId	String	fl-7a56mar1kfw9vj****	The ID of the flow log.
LogstoreName	String	config-operation-log	The name of the Logstore in Log Service.

Parameter	Type	Example	Description
ResourceGroupId	String	rg-acfm2iu4fnc****	The ID of the resource group to which the flow log belongs.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	44F4E2D0-77F7-4DEC-969B-061688946143	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeFlowLogs
&RegionId=cn-shanghai
&FlowLogId=fl-7a56mar1kfw9vj****
&FlowLogName=DDE
&Description=desc
&Status=Active
&OutputType=all
&ResourceGroupId=rg-acfm2iu4fnc****
&PageSize=10
&PageNumber=1
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeFlowLogsResponse>
    <TotalCount>1</TotalCount>
    <FlowLogs>
        <FlowLogSetType>
            <Status>Active</Status>
            <NetflowServerPort>9995</NetflowServerPort>
            <LogstoreName>
sag-shanghai</LogstoreName>
            <ActiveAging>300</ActiveAging>
            <ResourceGroupId>rg-acfm2iu4fnc****</ResourceGroupId>
            <ProjectName>sag-flowlog-shanghai</ProjectName>
            <NetflowVersion>V9</NetflowVersion>
            <InactiveAging>15</InactiveAging>
            <FlowLogId>fl-49u97c08z42n3f****</FlowLogId>
            <Name>zxtest</Name>
            <TotalSagNum>0</TotalSagNum>
            <SlsRegionId>cn-shanghai</SlsRegionId>
            <OutputType>sls</OutputType>
        </FlowLogSetType>
    </FlowLogs>
    <PageSize>10</PageSize>
    <RequestId>67D7003F-9D67-4935-9C47-10C5B3074028</RequestId>
    <PageNumber>1</PageNumber>
</DescribeFlowLogsResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 1,
  "FlowLogs" : {
    "FlowLogSetType" : [ {
      "Status" : "Active",
      "NetflowServerPort" : 9995,
      "LogstoreName" : "\r\nsag-shanghai",
      "ActiveAging" : 300,
      "ResourceGroupId" : "rg-acfm2iu4fnc****",
      "ProjectName" : "sag-flowlog-shanghai",
      "NetflowVersion" : "V9",
      "InactiveAging" : 15,
      "FlowLogId" : "fl-49u97c08z42n3f****",
      "Name" : "zxtest",
      "TotalSagNum" : 0,
      "SlsRegionId" : "cn-shanghai",
      "OutputType" : "sls"
    } ]
  },
  "PageSize" : 10,
  "RequestId" : "67D7003F-9D67-4935-9C47-10C5B3074028",
  "PageNumber" : 1
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.4. DeleteFlowLog

Deletes a flow log.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
FlowLogId	String	Yes	fl-7a56mar1kfw9vj****	The instance ID of the flow log.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the flow log belongs.
Action	String	No	DeleteFlowLog	The name of this action. Value: **DeleteFlowLog**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	B05AF87C-0FE5-42D7-BEA3-665D90FAA71D	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DeleteFlowLog
&FlowLogId=fl-7a56mar1kfw9vj****
&RegionId=cn-shanghai
&<CommonParameters>
```

Response example

`XML` format

```
<DeleteFlowLogResponse>
      <RequestId>B05AF87C-0FE5-42D7-BEA3-665D90FAA71D</RequestId>
 </DeleteFlowLogResponse>
```

`JSON` format

```
{
 "RequestId":"B05AF87C-0FE5-42D7-BEA3-665D90FAA71D"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The specified flow log has dependencies.
400	IncorrectStatus.FlowLog	The current status of instance does not support this operation.	The status of the specified flow log does not permit this operation.
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The specified FlowLogId does not exist.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	You must specify the FlowLogId.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The operation failed because the SAG instance is associated with another flow log.
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The version or model of the SAG device does not support the associating of flow logs.
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The number of flow logs has reached the quota.
400	MissingParam.LogstoreName	Specify the LogstoreName parameter.	You must specify the LogstoreName.
400	MissingParam.NetflowServerIp	Specify the NetflowServerIp parameter.	You must specify the NetflowServerIp.
400	MissingParam.NetflowServerPort	Specify the NetflowServerPort parameter.	You must specify the NetflowServerPort.
400	MissingParam.NetflowVersion	Specify the NetflowVersion parameter.	You must specify the NetflowVersion.
400	MissingParam.ProjectName	Specify the ProjectName parameter.	You must specify the ProjectName.
400	MissingParam.SlsRegionId	Specify the SlsRegionId parameter.	You must specify the SlsRegionId.

HTTP status code	Error code	Error message	Description
400	IllegalParam.ActiveAging	The specified ActiveAging is invalid.	The specified ActiveAging is invalid.
400	IllegalParam.InactiveAging	The specified InactiveAging is invalid.	The specified InactiveAging is invalid.
400	IllegalParam.NetflowServerIp	The specified NetflowServerIp is invalid.	The specified NetflowServerIp is invalid.
400	IllegalParam.NetflowServerPort	The specified NetflowServerPort is invalid.	The specified NetflowServerPort is invalid.
400	IllegalParam.NetflowVersion	The specified NetflowVersion is invalid.	The specified NetflowVersion is invalid.
400	IllegalParam.OutputType	The specified OutputType is invalid.	The specified OutputType is invalid.
400	IllegalParam.RegionId	The specified RegionId is invalid.	The specified RegionId is invalid.
400	IllegalParam.SlsRegionId	The specified SlsRegionId is invalid.	The specified SlsRegionId is invalid.
400	IllegalParam.Status	The specified Status parameter is invalid.	The specified Status is invalid.

For a list of error codes, visit the API Error Center.

10.5. ActiveFlowLog

Starts a flow log.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
FlowLogId	String	Yes	fl-l934tsa5504yuc****	The instance ID of the flow log.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the flow log belongs.
Action	String	No	ActiveFlowLog	The name of this action. Value: **ActiveFlowLog**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CBBE5EBF-69C1-4395-B36B-26B7605F87EA	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=ActiveFlowLog
&FlowLogId=fl-l934tsa5504yuc****
&RegionId=cn-shanghai
&<CommonParameters>
```

Response example

`XML` format

```
<ActiveFlowLogResponse>
   <RequestId>CBBE5EBF-69C1-4395-B36B-26B7605F87EA</RequestId>
    </ActiveFlowLogResponse>
```

`JSON` format

```
{
 "RequestId":"CBBE5EBF-69C1-4395-B36B-26B7605F87EA"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	IllegalParam.ActiveAging	The specified ActiveAging is invalid.	The specified ActiveAging is invalid.
400	IllegalParam.InactiveAging	The specified InactiveAging is invalid.	The specified InactiveAging is invalid.
400	IllegalParam.NetflowServerIp	The specified NetflowServerIp is invalid.	The specified NetflowServerIp is invalid.
400	IllegalParam.NetflowServerPort	The specified NetflowServerPort is invalid.	The specified NetflowServerPort is invalid.
400	IllegalParam.NetflowVersion	The specified NetflowVersion is invalid.	The specified NetflowVersion is invalid.
400	IllegalParam.OutputType	The specified OutputType is invalid.	The specified OutputType is invalid.
400	IllegalParam.RegionId	The specified RegionId is invalid.	The specified RegionId is invalid.
400	IllegalParam.SlsRegionId	The specified SlsRegionId is invalid.	The specified SlsRegionId is invalid.
400	IllegalParam.Status	The specified Status parameter is invalid.	The specified Status is invalid.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The version of the SAG device does not support this function.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The version of the active SAG device does not support this function.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The version of the standby SAG device does not support this function.
400	IncorrectStatus.FlowLog	The current FlowLog instance status does not support this operation.	The status of the flow log does not permit this operation.
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The fow log has dependencies.

HTTP status code	Error code	Error message	Description
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The specified FlowLogId does not exist.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	You must specify the FlowLogId.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The operation failed because the SAG instance is associated with another flow log.
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The version or model of the SAG device does not support the associating of flow logs.
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The number of flow logs has reached the quota.

For a list of error codes, visit the API Error Center.

10.6. DeactiveFlowLog

Stops a flow log.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
FlowLogId	String	Yes	fl-l934tsa5504yuc****	The instance ID of the flow log.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the flow log belongs.
Action	String	No	DeactiveFlowLog	The name of this action. Value: **DeactiveFlowLog**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	5F2BAEAF-96D4-4BE5-A031-6CAD7B145D0D	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DeactiveFlowLog
&FlowLogId=fl-l934tsa5504yuc****
&RegionId=cn-shanghai
&<CommonParameters>
```

Response example

`XML` format

```
<DeactiveFlowLogResponse>
   <RequestId>5F2BAEAF-96D4-4BE5-A031-6CAD7B145D0D</RequestId>
  </DeactiveFlowLogResponse>
```

`JSON` format

```
{
 "RequestId":"5F2BAEAF-96D4-4BE5-A031-6CAD7B145D0D"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The flow log has dependencies.
400	IncorrectStatus.FlowLog	The current FlowLog instance status does not support this operation.	The status of the flow log does not permit this operation.
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The specified FlowLogId does not exist.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	You must specify the FlowLogId.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The operation failed because the SAG instance is associated with another flow log.
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The version or model of the SAG device does not support the associating of flow logs.
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The number of flow logs has reached the quota.

For a list of error codes, visit the API Error Center.

10.7. AssociateFlowLog

Associates a flow log with a Smart Access Gateway (SAG) instance.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
FlowLogId	String	Yes	fl-l934tsa5504yuc****	The instance ID of the flow log.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the flow log belongs.
SmartAGId	String	Yes	sag-39u6j9a49i03wk****	The ID of the SAG instance to be associated.

Parameter	Type	Required?	Example value	Description
Action	String	No	AssociateFlowLog	The name of this action. Value: **AssociateFlowLog**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	A6E1680B-B34F-4BB7-B504-F8ED675E721C	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=AssociateFlowLog
&FlowLogId=fl-1934tsa5504yuc****
&RegionId=cn-shanghai
&SmartAGId=sag-39u6j9a49i03wk****
&<CommonParameters>
```

Response example

`XML` format

```
<AssociateFlowLogResponse>
   <RequestId>A6E1680B-B34F-4BB7-B504-F8ED675E721C</RequestId>
    </AssociateFlowLogResponse>
```

`JSON` format

```
{
 "RequestId":"A6E1680B-B34F-4BB7-B504-F8ED675E721C"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The flow log has dependencies.
400	IncorrectStatus.FlowLog	The current FlowLog instance status does not support this operation.	The status of the flow log does not permit this operation.
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The specified FlowLogId does not exist.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	You must specify the FlowLogId.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The operation failed because the SAG instance is associated with another flow log.
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The version or model of the SAG device does not support the associating of flow logs.

HTTP status code	Error code	Error message	Description
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The number of flow logs has reached the quota.
400	IllegalParam.ActiveAging	The specified ActiveAging is invalid.	The specified ActiveAging is invalid.
400	IllegalParam.InactiveAging	The specified InactiveAging is invalid.	The specified InactiveAging is invalid.
400	IllegalParam.NetflowServerIp	The specified NetflowServerIp is invalid.	The specified NetflowServerIp is invalid.
400	IllegalParam.NetflowServerPort	The specified NetflowServerPort is invalid.	The specified NetflowServerPort is invalid.
400	IllegalParam.NetflowVersion	The specified NetflowVersion is invalid.	The specified NetflowVersion is invalid.
400	IllegalParam.OutputType	The specified OutputType is invalid.	The specified OutputType is invalid.
400	IllegalParam.RegionId	The specified RegionId is invalid.	The specified RegionId is invalid.
400	IllegalParam.SlsRegionId	The specified SlsRegionId is invalid.	The specified SlsRegionId is invalid.
400	IllegalParam.Status	The specified Status parameter is invalid.	The specified Status is invalid.
400	InvalidSmartAGId.NotFound	The specified SmartAGId does not exist.	The specified SmartAGId does not exist.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The version of the SAG device does not support this function.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The version of the active SAG device does not support this function.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The version of the standby SAG device does not support this function.

For a list of error codes, visit the API Error Center.

10.8. DisassociateFlowLog

Disassociates a Smart Access Gateway (SAG) instance from a flow log.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
FlowLogId	String	Yes	fl-l934tsa5504yuc****	The instance ID of the flow log.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the flow log belongs.

Parameter	Type	Required?	Example value	Description
SmartAGId	String	Yes	sag-0v3pmd7qpnvx5f****	The ID of the SAG instance.
Action	String	No	DisassociateFlowLog	The name of this action. Value: **DisassociateFlowLog**

Response parameters

Parameter	Type	Example value	Description
RequestId	String	DD864F79-FDAC-4909-AFAF-84D1DCAF30A3	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DisassociateFlowLog
&FlowLogId=fl-l934tsa5504yuc****
&RegionId=cn-shanghai
&SmartAGId=sag-0v3pmd7qpnvx5f****
&<CommonParameters>
```

Response example

`XML` format

```
<DisassociateFlowLogResponse>
   <RequestId>DD864F79-FDAC-4909-AFAF-84D1DCAF30A3</RequestId>
    </DisassociateFlowLogResponse>
```

`JSON` format

```
{
 "RequestId":"DD864F79-FDAC-4909-AFAF-84D1DCAF30A3"
}
```

Errors

HTTP status code	Error code	Error message	Description
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The specified flow log has dependencies.
400	IncorrectStatus.FlowLog	The current FlowLog instance status does not support this operation.	The status of the flow log does not permit this operation.
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The specified instance ID of the flow log is invalid.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	You must specify the FlowLogId.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The operation failed because the specified SAG instance is already associated with other flow logs.

HTTP status code	Error code	Error message	Description
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The version or specification of the SAG device does not permit the associating of flow logs.
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The number of flow logs has reached the quota.
400	InvalidSmartAGId.NotFound	The specified SmartAGId does not exist.	The specified SAG instance ID is invalid.
400	IllegalParam.ActiveAging	The specified ActiveAging is invalid.	The specified value of the ActiveAging parameter is invalid.
400	IllegalParam.InactiveAging	The specified InactiveAging is invalid.	The specified value of the InactiveAging parameter is invalid.
400	IllegalParam.NetflowServerIp	The specified NetflowServerIp is invalid.	The specified value of the NetflowServerIp parameter is invalid.
400	IllegalParam.NetflowServerPort	The specified NetflowServerPort is invalid.	The specified value of the NetflowServerPort parameter is invalid.
400	IllegalParam.NetflowVersion	The specified NetflowVersion is invalid.	The specified value of the NetflowVersion parameter is invalid.
400	IllegalParam.OutputType	The specified OutputType is invalid.	The specified value of the OutputType parameter is invalid.
400	IllegalParam.RegionId	The specified RegionId is invalid.	The specified value of the RegionId parameter is invalid.
400	IllegalParam.SlsRegionId	The specified SlsRegionId is invalid.	The specified value of the SlsRegionId parameter is invalid.
400	IllegalParam.Status	The specified Status parameter is invalid.	The specified value of the Status parameter is invalid.

For a list of error codes, visit the API Error Center.

10.9. DescribeFlowLogSags

Queries the Smart Access Gateway (SAG) instances associated with a flow log.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
FlowLogId	String	Yes	fl-l934tsa5504yuc****	The instance ID of the flow log.
RegionId	String	Yes	cn-shanghahi	The ID of the region to which the flow log belongs.
Action	String	No	DescribeFlowLogSags	The name of this action. Value: **DescribeFlowLogSags**

Parameter	Type	Required?	Example value	Description
PageNumber	Integer	No	1	The page number of the SAG instance list. Minimum value: **1**. Default value: **1**
PageSize	Integer	No	10	The number of entries per page in the case of a paged query result. Maximum value: **50**. Default value: **10**

Response parameters

Parameter	Type	Example value	Description
PageNumber	Integer	1	The current page number.
PageSize	Integer	4	The number of entries on the current page.
RequestId	String	8D945945-85F2-4BD7-A144-7DC0E8B5A0DC	The ID of the request.
Sags			The list of SAG instances.
Sag			The details of an SAG instance.
Description	String	sag-100wm	The description of the SAG instance.
Name	String	ruijie-test-2	The name of the SAG instance.
SmartAGId	String	sag-6rm1awijm3ktic****	The ID of the SAG instance.
TotalCount	Integer	35	The total number of entries.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DescribeFlowLogSags
&FlowLogId=fl-l934tsa5504yuc****
&RegionId=cn-shanghahi
&<CommonParameters>
```

Response example

`XML` format

```
<DescribeFlowLogSagsResponse>
   <PageNumber>1</PageNumber>
   <Sags>
      <Sag>
         <Name>ruijie-test-2</Name>
         <SmartAGId>sag-6rm1awijm3ktic****</SmartAGId>
      </Sag>
      <Sag>
         <Name>ruijie-test-2</Name>
         <SmartAGId>sag-ecvqa7bw8fxbdn****</SmartAGId>
      </Sag>
      <Sag>
         <Name>ccn-e2e-cn-sh-0-0820-005408</Name>
         <SmartAGId>sag-gn7m5v5bpjykne****</SmartAGId>
      </Sag>
      <Sag>
         <Name>sag-sec-1b</Name>
         <SmartAGId>sag-hk69hizmi21fy9****</SmartAGId>
      </Sag>
      <Sag>
         <Name></Name>
         <SmartAGId>sag-i54wm4v15ruxji****</SmartAGId>
      </Sag>
      <Sag>
         <Name>china-0-0424-222240</Name>
         <SmartAGId>sag-iunln2dztruttt****</SmartAGId>
      </Sag>
      <Sag>
         <Name>sag-sec-1</Name>
         <SmartAGId>sag-q1sqc77sk2oe08****</SmartAGId>
      </Sag>
      <Sag>
         <Name>sag1000_box5</Name>
         <SmartAGId>sag-u42tn80ro3bxsd****</SmartAGId>
      </Sag>
      <Sag>
         <Name>ccn-e2e-cn-sh-0-0820-005549</Name>
         <SmartAGId>sag-wle98f4o41nm3f****</SmartAGId>
      </Sag>
      <Sag>
         <Name>jia_dual-device_SAG1000</Name>
         <SmartAGId>sag-yev5ajsek9x12o****</SmartAGId>
      </Sag>
   </Sags>
   <TotalCount>35</TotalCount>
   <PageSize>10</PageSize>
   <RequestId>8D945945-85F2-4BD7-A144-7DC0E8B5A0DC</RequestId>
 </DescribeFlowLogSagsResponse>
```


`JSON` format

```
{
 "PageNumber":1,
 "Sags":{
  "Sag":[
   {
    "SmartAGId":"sag-6rm1awijm3ktic****",
    "Name":"ruijie-test-2"
   },
   {
    "SmartAGId":"sag-ecvqa7bw8fxbdn****",
    "Name":"zhanxiaolong"
   },
   {
    "SmartAGId":"sag-gn7m5v5bpjykne****",
    "Name":"ccn-e2e-cn-sh-0-0820-005408"
   },
   {
    "SmartAGId":"sag-hk69hizmi21fy9****",
    "Name":"sag-sec-1b"
   },
   {
    "SmartAGId":"sag-i54wm4v15ruxji****",
    "Name":""
   },
   {
    "SmartAGId":"sag-iunln2dztruttt****",
    "Name":"china-0-0424-222240"
   },
   {
    "SmartAGId":"sag-q1sqc77sk2oe08****",
    "Name":"sag-sec-1"
   },
   {
    "SmartAGId":"sag-u42tn80ro3bxsd****",
    "Name":"sag1000_box5"
   },
   {
    "SmartAGId":"sag-wle98f4o41nm3f****",
    "Name":"ccn-e2e-cn-sh-0-0820-005549"
   },
   {
    "SmartAGId":"sag-yev5ajsek9x12o****",
    "Name":"jia_dual-device_SAG1000"
   }
  ]
 },
 "TotalCount":35,
 "PageSize":10,
 "RequestId":"8D945945-85F2-4BD7-A144-7DC0E8B5A0DC"
}
```


Errors

HTTP status code	Error code	Error message	Description
400	IllegalParam.ActiveAging	The specified ActiveAging is invalid.	The specified ActiveAging is invalid.
400	IllegalParam.InactiveAging	The specified InactiveAging is invalid.	The specified InactiveAging is invalid.
400	IllegalParam.NetflowServerIp	The specified NetflowServerIp is invalid.	The specified NetflowServerIp is invalid.

HTTP status code	Error code	Error message	Description
400	IllegalParam.NetflowServerPort	The specified NetflowServerPort is invalid.	The specified NetflowServerPort is invalid.
400	IllegalParam.NetflowVersion	The specified NetflowVersion is invalid.	The specified NetflowVersion is invalid.
400	IllegalParam.OutputType	The specified OutputType is invalid.	The specified OutputType is invalid.
400	IllegalParam.RegionId	The specified RegionId is not valid	The specified RegionId is invalid.
400	IllegalParam.SlsRegionId	The specified SlsRegionId is invalid.	The specified SlsRegionId is invalid.
400	IllegalParam.Status	The specified Status parameter is invalid.	The specified Status is invalid.
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The flow log has dependencies.
400	IncorrectStatus.FlowLog	The current FlowLog instance status does not support this operation.	The status of the flow log does not permit this operation.
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The specified FlowLogId does not exist.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	You must specify the FlowLogId.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The operation failed because the SAG instance is associated with another flow log.
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The version or model of the SAG device does not support the associating of flow logs.
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The number of flow logs has reached the quota.

For a list of error codes, visit the API Error Center.

10.10. DescribeUnbindFlowLogSags

Queries Smart Access Gateway (SAG) instances that are not associated with a flow log in a specific region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeUnbindFlowLogSags	The operation that you want to perform. Set the value to **DescribeUnbindFlowLogSags**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instances are deployed. You can call the DescribeRegions operation to query the most recent region list.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C850C10E-9856-45FF-8640-80288BA467DF	The ID of the request.
Count	Integer	20	The total number of the SAG instances.
Sags	Array of Sag		The list of the SAG instances.
Sag			
Description	String	desctest	The description of the SAG instance.
SmartAGId	String	sag-tzirqx07bvcngm****	The ID of the SAG instance.
Name	String	sj1000-yf-01	The name of the SAG instance.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeUnbindFlowLogSags
&RegionId=cn-shanghai
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeUnbindFlowLogSagsResponse>
    <Sags>
        <Sag>
            <Name>jialiang_1000_test_2</Name>
            <SmartAGId>sag-0v3pmd7qpnvx5f****</SmartAGId>
        </Sag>
        <Sag>
            <Name>ccn-bvt-china-0-0625-023417</Name>
            <SmartAGId>sag-0wxbzaf623oz8a****</SmartAGId>
        </Sag>
        <Sag>
            <SmartAGId>sag-13wvoucmn6tjqm****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sj1000-joe-04</Name>
            <SmartAGId>sag-1ihuk7d1qskqk0****</SmartAGId>
        </Sag>
        <Sag>
            <Name>ccn-bvt-china-0-0625-023333</Name>
            <SmartAGId>sag-1tvzazjggo0vac****</SmartAGId>
        </Sag>
        <Sag>
            <Name>joe-casetest-0808</Name>
            <SmartAGId>sag-2c9nradcadqceg****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sj1000-joe_01</Name>
```

```
            <SmartAGId>sag-2dl02o7focaqxo****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sag1000-b5</Name>
            <SmartAGId>sag-60q4iaq068nxt2****</SmartAGId>
        </Sag>
        <Sag>
            <Name>ccn-bvt-china-0-0625-022008</Name>
            <SmartAGId>sag-6m5684w9mhcgzz****</SmartAGId>
        </Sag>
        <Sag>
            <Name>ccn-bvt-china-0-0426-005047</Name>
            <SmartAGId>sag-6t4pxotq7rfz6w****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sag-1000-rd-test-env1</Name>
            <SmartAGId>sag-8gocbtkbp9b52c****</SmartAGId>
        </Sag>
        <Sag>
            <Name>tianye-test-vbr</Name>
            <SmartAGId>sag-8z7hn75tubgac2****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sj1000-joe-05</Name>
            <SmartAGId>sag-d866xl31k8lleb****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sag1000_box6</Name>
            <SmartAGId>sag-dztg1lco3aacpu****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sag1000-ha-for-case</Name>
            <SmartAGId>sag-ewmmi6fcq3gldu****</SmartAGId>
        </Sag>
        <Sag>
            <Name>ccn-bvt-china-0-0613-003734</Name>
            <SmartAGId>sag-fckt58zc4j4b8o****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sag-sec-2</Name>
            <SmartAGId>sag-h4j0klyvprxta5****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sn-sag1000-2018-11-08-17-27-11</Name>
            <SmartAGId>sag-h79g3zs0q7nk9f****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sag1000_sh_upgrade</Name>
            <SmartAGId>sag-mrrrlh3xgpyipu****</SmartAGId>
        </Sag>
        <Sag>
            <Name>ccn-bvt-china-0-0625-021924</Name>
            <SmartAGId>sag-ruia2xefxbdm5e****</SmartAGId>
        </Sag>
        <Sag>
            <Name>chengxi_bigbox_cn</Name>
            <SmartAGId>sag-sb7t1efidyc5d5****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sj1000-joe_03</Name>
            <SmartAGId>sag-srgxemiqbyzdxf****</SmartAGId>
        </Sag>
        <Sag>
            <Name>sj1000-yf-01</Name>
            <SmartAGId>sag-tzirqx07bvcngm****</SmartAGId>
```

```
        </Sag>
        <Sag>
            <Name>ccn-bvt-china-0-0426-005001</Name>
            <SmartAGId>sag-xboakpuqext95x****</SmartAGId>
        </Sag>
    </Sags>
    <Count>20</Count>
    <RequestId>C850C10E-9856-45FF-8640-80288BA467DF</RequestId>
</DescribeUnbindFlowLogSagsResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "Sags" : {
    "Sag" : [ {
      "Name" : "jialiang_1000_test_2",
      "SmartAGId" : "sag-0v3pmd7qpnvx5f****"
    }, {
      "Name" : "ccn-bvt-china-0-0625-023417",
      "SmartAGId" : "sag-0wxbzaf623oz8a****"
    }, {
      "SmartAGId" : "sag-13wvoucmn6tjqm****"
    }, {
      "Name" : "sj1000-joe-04",
      "SmartAGId" : "sag-1ihuk7d1qskqk0****"
    }, {
      "Name" : "ccn-bvt-china-0-0625-023333",
      "SmartAGId" : "sag-1tvzazjggo0vac****"
    }, {
      "Name" : "joe-casetest-0808",
      "SmartAGId" : "sag-2c9nradcadqceg****"
    }, {
      "Name" : "sj1000-joe_01",
      "SmartAGId" : "sag-2d102o7focaqxo****"
    }, {
      "Name" : "sag1000-b5",
      "SmartAGId" : "sag-60q4iaq068nxt2****"
    }, {
      "Name" : "ccn-bvt-china-0-0625-022008",
      "SmartAGId" : "sag-6m5684w9mhcgzz****"
    }, {
      "Name" : "ccn-bvt-china-0-0426-005047",
      "SmartAGId" : "sag-6t4pxotq7rfz6w****"
    }, {
      "Name" : "sag-1000-rd-test-env1",
      "SmartAGId" : "sag-8gocbtkbp9b52c****"
    }, {
      "Name" : "tianye-test-vbr",
      "SmartAGId" : "sag-8z7hn75tubgac2****"
    }, {
      "Name" : "sj1000-joe-05",
      "SmartAGId" : "sag-d866xl31k8lleb****"
    }, {
      "Name" : "sag1000_box6",
      "SmartAGId" : "sag-dztg1lco3aacpu****"
    }, {
      "Name" : "sag1000-ha-for-case",
      "SmartAGId" : "sag-ewmmi6fcq3gldu****"
    }, {
      "Name" : "ccn-bvt-china-0-0613-003734",
      "SmartAGId" : "sag-fckt58zc4j4b8o****"
    }, {
```

```
      "Name" : "sag-sec-2",
      "SmartAGId" : "sag-h4j0klyvprxta5****"
    }, {
      "Name" : "sn-sag1000-2018-11-08-17-27-11",
      "SmartAGId" : "sag-h79g3zs0q7nk9f****"
    }, {
      "Name" : "sag1000_sh_upgrade",
      "SmartAGId" : "sag-mrrrlh3xgpyipu****"
    }, {
      "Name" : "ccn-bvt-china-0-0625-021924",
      "SmartAGId" : "sag-ruia2xefxbdm5e****"
    }, {
      "Name" : "chengxi_bigbox_cn",
      "SmartAGId" : "sag-sb7t1efidyc5d5****"
    }, {
      "Name" : "sj1000-joe_03",
      "SmartAGId" : "sag-srgxemiqbyzdxf****"
    }, {
      "Name" : "sj1000-yf-01",
      "SmartAGId" : "sag-tzirqx07bvcngm****"
    }, {
      "Name" : "ccn-bvt-china-0-0426-005001",
      "SmartAGId" : "sag-xboakpuqext95x****"
    } ]
  },
  "Count" : 20,
  "RequestId" : "C850C10E-9856-45FF-8640-80288BA467DF"
}
```


Error codes

HttpCode	Error code	Error message	Description
400	DependencyViolation.FlowLog	This FlowLog instance is bound to an SAG instance.	The error message returned because the flow log is associated with an SAG instance.
400	IncorrectStatus.FlowLog	The current FlowLog instance status does not support this operation.	The error message returned because the status of the flow log does not support this operation.
400	InvalidFlowLogId.NotFound	The specified FlowLogId does not exist.	The error message returned because the specified flow log (FlowLogId) does not exist.
400	MissingParam.FlowLogId	Specify the FlowLogId parameter.	The error message returned because the ID (FlowLogId) of the flow log is not specified.
400	OperationFailed.AssociateFlowLog	The operation failed. The specified SAG instance has already been associated with another FlowLog instance.	The error message returned because the specified SAG instance is associated with another flow log.
400	OperationUnsupported.AssociateFlowLog	You cannot bind the SAG device of the current version or model to a FlowLog instance.	The error message returned because the version or type of the SAG device does not support this operation.
400	QuotaExceeded.Flowlog	The maximum number of FlowLog instances is exceeded.	The error message returned because the number of flow logs that you specified has reached the upper limit.

HttpCode	Error code	Error message	Description
400	IllegalParam.ActiveAging	The specified ActiveAging is invalid.	The error message returned because the specified time interval (ActiveAging) at which log data of active connections is collected is invalid.
400	IllegalParam.InactiveAging	The specified InactiveAging is invalid.	The error message returned because the specified time interval (InactiveAging) at which log data of inactive connections is collected is invalid.
400	IllegalParam.NetflowServerIp	The specified NetflowServerIp is invalid.	The error message returned because the specified IP address (NetflowServerIp) of the NetFlow collector is invalid.
400	IllegalParam.NetflowServerPort	The specified NetflowServerPort is invalid.	The error message returned because the specified port (NetflowServerPort) of the NetFlow collector is invalid.
400	IllegalParam.NetflowVersion	The specified NetflowVersion is invalid.	The error message returned because the specified NetFlow version (NetflowVersion) is invalid.
400	IllegalParam.OutputType	The specified OutputType is invalid.	The error message returned because the specified storage location (OutputType) of the flow log is invalid.
400	IllegalParam.RegionId	The specified RegionId is invalid.	The error message returned because the specified ID (RegionId) of the region is invalid.
400	IllegalParam.SlsRegionId	The specified SlsRegionId is invalid.	The error message returned because the specified ID (SlsRegionId) of the region where Log Service is deployed is invalid.
400	IllegalParam.Status	The specified Status parameter is invalid.	The error message returned because the specified status (Status) of the flow log is invalid.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you do not have the permissions to manage the specified resource.
403	MissingParameter	The input parameter is missing, please check your input.	The error message returned because one or more required parameters are not set. Check whether you have set all required parameters.
403	InvalidParameter	The specified parameter is invalid.	The error message returned because a parameter is set to an invalid value.
403	InternalError	An internal server error occurred.	The error message returned because an internal server error has occurred.

For a list of error codes, visit the API Error Center.

11.Route advertisement policies

11.1. DescribeRouteDistributionStrategies

Queries route advertisement policies.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates a sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeRouteDistributionStrategies	The operation that you want to perform. Set the value to **DescribeRouteDistributionStrategies**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-erx3qta5xg5zyq****	The ID of the SAG instance.
SourceType	String	Yes	cloud	The type of route. Valid values: • **cloud**: Alibaba Cloud-facing routes. These routes allow SAG instance to access resources deployed on Alibaba Cloud. • **local**: private network-facing routes. These routes allow SAG instances to communicate with on-premises terminals.
PageNumber	Integer	No	1	The number of the page to return . Pages start from page 1. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**.

Response parameters

Parameter	Type	Example	Description
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries to return on each page.
RequestId	String	944C2533-1BB7-4578-B6EB-DA05BB61C02A	The ID of the request.
Strategies	Array		The list of route advertisement policies.
Strategy			

Parameter	Type	Example	Description
ConflictInfo	String	"10.90.6.0/24":"vbr-wz900pom71qyr6x67qz65,vbr-wz9f8icxnlcom7riz0gfx"	The information about overlapped routes.
CreateTime	Long	1144445	The timestamp that indicates when the health check instance was created. Unit: millisecond.
DestCidrBlock	String	192.168.3.0/24	The destination CIDR block.
HcInstanceId	String	hc-sztovuprqzgm50****	The ID of the health check instance.
IsConflict	Boolean	false	Indicates whether routes are overlapped. Valid values: • **true**: overlapped. • **false**: no
RouteDistribution	String	publish	The route advertisement policy. Valid values: • **published**: advertises routes. • **no_publish**: does not advertise routes. • **no_publish_and_publish_on_health_success**: routes are only advertised when they pass health check. • **no_publish_and_publish_on_health_fail**: routes are advertised only when they fail health check. • **publish_and_revoke_on_health_success**: advertised routes are only withdrawn when they pass health check. • **publish_and_revoke_on_health_fail**: advertised routes are withdrawn only when they fail health check. For more information, see Configure health check and Advertise routes.

RouteSource	String	STATIC	The source of routes. Valid values:
			• **Alibaba Cloud-facing routes**
			  ○ **The ID of the Virtual Private Cloud (VPC)**: learns routes from the VPC network.
			  ○ **The ID of the virtual border router (VBR)**: learns routes from the VBR.
			  ○ **The ID of the SAG instance**: learns routes from the SAG instance.
			• **Private network-facing routes**
			  ○ **STATIC**: static routes specified in the SAG console.
			  ○ **OSPF**: learns routes through the Open Shortest Path First (OSPF) protocol.
			  ○ **BGP**: learns routes through Border Gateway Protocol (BGP).

Parameter	Type	Example	Description
SmartAGId	String	sag-erx3qta5xg5zyq****	The ID of the SAG instance.
SourceType	String	cloud	The type of route. Valid values: • **cloud**: Alibaba Cloud-facing routes. • **local**: private network-facing routes.
Status	String	normal	The route status. Valid values: • **normal**: The route works as expected. • **revoked**: The route has been withdrawn.
StrategyPublishStatus	String	publish	The route advertisement status. Valid values: • **published**: The route has been advertised. • **not_publish**: The route has not been advertised.
TotalCount	Integer	5	The total number of routes.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeRouteDistributionStrategies
&RegionId=cn-shanghai
&SmartAGId=sag-erx3qta5xg5zyq****
&SourceType=cloud
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeRouteDistributionStrategiesResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>2</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>944C2533-1BB7-4578-B6EB-DA05BB61C02A</RequestId>
  <Strategies>
        <Strategy>
              <SmartAGId>sag-erx3qta5xg5zyq****</SmartAGId>
              <Status>normal</Status>
              <RouteSource>STATIC</RouteSource>
              <SourceType>local</SourceType>
              <IsConflict>false</IsConflict>
              <DestCidrBlock>192.168.10.0/24</DestCidrBlock>
        </Strategy>
        <Strategy>
              <SmartAGId>sag-erx3qta5xg5zyq****</SmartAGId>
              <Status>normal</Status>
              <RouteSource>STATIC</RouteSource>
              <SourceType>local</SourceType>
              <IsConflict>false</IsConflict>
              <DestCidrBlock>192.168.11.0/24</DestCidrBlock>
        </Strategy>
  </Strategies>
</DescribeRouteDistributionStrategiesResponse>
```

`JSON` format

```
{
 "PageNumber": 1,
 "TotalCount": 2,
 "PageSize": 10,
 "RequestId": "944C2533-1BB7-4578-B6EB-DA05BB61C02A",
 "Strategies": {
  "Strategy": [
   {
    "SmartAGId": "sag-erx3qta5xg5zyq****",
    "Status": "normal",
    "RouteSource": "STATIC",
    "SourceType": "local",
    "IsConflict": false,
    "DestCidrBlock": "192.168.10.0/24"
   },
   {
    "SmartAGId": "sag-erx3qta5xg5zyq****",
    "Status": "normal",
    "RouteSource": "STATIC",
    "SourceType": "local",
    "IsConflict": false,
    "DestCidrBlock": "192.168.11.0/24"
   }
  ]
 }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the SAG instance ID is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	RD.InvalidSourceType	The specified route source type is invalid.	The error message returned because the type of the specified route source is invalid.

For a list of error codes, visit the API Error Center.

11.2. ModifyRouteDistributionStrategy

You can call this operation to modify the route advertisement policy for a CIDR block.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyRouteDistributionStrategy	The operation that you want to perform. Set the value to **ModifyRouteDistributionStrategy**.

Parameter	Type	Required	Example	Description
DestCidrBlock	String	Yes	172.XX.XX.0/24	The CIDR block whose route advertisement policy you want to modify.
HcInstanceId	String	Yes	hc-sztovuprqzgm50****	The ID of the health check instance.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
RouteDistribution	String	Yes	publish	The route advertisement policy. Valid values: • **published**: advertises routes. • **no_publish**: does not advertise routes. • **no_publish_and_publish_on_health_success**: routes are only advertised when they pass health check. • **no_publish_and_publish_on_health_fail**: route are only advertised when they fail health check. • **publish_and_revoke_on_health_success**: advertised routes are only withdrawn when they pass health check. • **publish_and_revoke_on_health_fail**: advertised routes are only withdrawn when they fail health check. For more information, see Configure health check and Advertise routes.

RouteSource	String	Yes	OSPF	The source of routes. Valid values:
				• **Alibaba Cloud-facing routes**
				  ○ **The ID of the Virtual Private Cloud (VPC) network**: learns routes from the VPC network.
				  ○ **The ID of the virtual border router (VBR)**: learns routes from the VBR.
				  ○ **The ID of the SAG instance**: learns routes from the SAG instance.
				• **Private network-facing routes**
				  ○ **STATIC**: static routes specified in the SAG console.
				  ○ **OSPF**: learns routes through the Open Shortest Path First (OSPF) protocol.
				  ○ **BGP**: learns routes through Border Gateway Protocol (BGP).

SmartAGId	String	Yes	sag-erx3qta5xg5zyq****	The ID of the SAG instance.
SourceType	String	Yes	local	The type of the route source. Valid values: • **cloud**: Alibaba Cloud-facing routes. • **local**: private network-facing routes.

Response parameters

Parameter	Type	Example	Description
RequestId	String	24C58BD0-1679-4942-9D42-00B635DAAADB	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyRouteDistributionStrategy
&DestCidrBlock=172.XX.XX.0/24
&HcInstanceId=hc-sztovuprqzgm50****
&RegionId=cn-shanghai
&RouteDistribution=publish
&RouteSource=OSPF
&SmartAGId=sag-erx3qta5xg5zyq****
&SourceType=local
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyRouteDistributionStrategyResponse>
  <RequestId>24C58BD0-1679-4942-9D42-00B635DAAADB</RequestId>
</ModifyRouteDistributionStrategyResponse>
```

`JSON` format

```
{
 "RequestId": "24C58BD0-1679-4942-9D42-00B635DAAADB"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	RD.InvalidDestCidrBlock	The specified destination CIDR block is invalid.	The error message returned because the specified destination CIDR block is invalid.
400	RD.InvalidHcInstanceId	The specified network health check instance ID is invalid.	The error message returned because the specified health check instance is invalid.
400	RD.InvalidRouteDistribution	The specified route distribution policy is invalid.	The error message returned because the specified route advertisement policy is invalid.
400	RD.InvalidRouteSource	The specified route source is invalid.	The error message returned because the specified route source is invalid.
400	RD.InvalidSourceType	The specified route source type is invalid.	The error message returned because the type of the specified route source is invalid.

HttpCode	Error code	Error message	Description
400	HC.InstanceNoFound	The specified network health check instance does not exist.	The error message returned because the specified health check instance does not exist.
400	SAG.Arrearage	The specified SAG instance has overdue payments. Renew the instance first.	The error message returned because the specified SAG instance has an overdue payment. Complete the payment first.
400	SAG.NoActive	The specified SAG instance has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
400	SAG.SoftwareNotSupportFeature	The specified SAG Software instance does not support this feature.	The error message returned because the SAG instance does not support this feature.

For a list of error codes, visit the API Error Center.

11.3. DeleteRouteDistributionStrategy

You can call this operation to delete the route advertisement policy of a CIDR block.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteRouteDistributionStrategy	The operation that you want to perform. Set the value to **DeleteRouteDistributionStrategy**.
DestCidrBlock	String	Yes	192.XX.XX.0/24	The CIDR block whose route advertisement policy you want to delete.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.

Parameter	Type	Required	Example	Description

RouteSource	String	Yes	STATIC	The source of routes. Valid values:
				• **Alibaba Cloud-facing routes**
				  ○ **The ID of the Virtual Private Cloud (VPC) network**: leans routes from the VPC network.
				  ○ **The ID of the virtual border router (VBR)**: learns routes from the VBR.
				  ○ **The ID of the SAG instance**: learns routes from the SAG instance.
				• **Private network-facing routes**
				  ○ **STATIC**: static routes specified in the SAG console.
				  ○ **OSPF**: learns routes through the Open Shortest Path First (OSPF) protocol.
				  ○ **BGP**: learns routes through Border Gateway Protocol (BGP).

SmartAGId	String	Yes	sag-gyat6giidkvyk****	The ID of the SAG instance.
SourceType	String	Yes	local	The type of the route source. Valid values: • **cloud**: Alibaba Cloud-facing routes. • **local**: private network-facing routes.

Response parameters

Parameter	Type	Example	Description
RequestId	String	BF62139B-D64A-4C95-A55F-6A2335C4417D	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteRouteDistributionStrategy
&DestCidrBlock=192.XX.XX.0/24
&RegionId=cn-shanghai
&RouteSource=static
&SmartAGId=sag-gyat6giidkvyk****
&SourceType=local
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteRouteDistributionStrategyResponse>
  <RequestId>BF62139B-D64A-4C95-A55F-6A2335C4417D</RequestId>
</DeleteRouteDistributionStrategyResponse>
```

`JSON` format

```
{
 "RequestId": "BF62139B-D64A-4C95-A55F-6A2335C4417D"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the SAG instance is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	RD.InvalidDestCidrBlock	The specified destination CIDR block is invalid.	The error message returned because the specified CIDR block is invalid.
400	RD.InvalidRouteSource	The specified route source is invalid.	The error message returned because the specified route source is invalid.
400	RD.InvalidSourceType	The specified route source type is invalid.	The error message returned because the type of the specified route source is invalid.

For a list of error codes, visit the API Error Center.

12.Health check

12.1. ModifyHealthCheck

You can call this operation to modify a health check instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyHealthCheck	The operation that you want to perform. Set the value to **ModifyHealthCheck**.
Description	String	Yes	Health Check 1	The description of the health check instance. The description must be 2 to 256 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter or Chinese character.
DstIpAddr	String	Yes	192.XX.XX.1	The destination IP address used in health checks.
DstPort	Integer	Yes	2233	The destination port used in health checks. **Note** This feature is not supported.
FailCountThreshold	Integer	Yes	3	The number of failed probes before a health check is declared failed. Valid values: **1** to **15**. Default value: **3**.
HcInstanceId	String	Yes	hc-k9id4loo3lup57****	The ID of the health check instance.
Name	String	Yes	sss333	The name of the health check instance. The name must be 2 to 100 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter or Chinese character.
ProbeCount	Integer	Yes	1	The number of probes preformed during each health check. Valid values: **1** to **20**. Default value: **1**.

Parameter	Type	Required	Example	Description
ProbeInterval	Integer	Yes	2000	The time interval at which probes are performed. The next probe does not start before the current one is completed. Valid values: **1000** to **60000**. Default value: **2000**. Unit: millisecond.
ProbeTimeout	Integer	Yes	3000	The timeout period of a probe. Valid values: **10** to **30000**. Default value:**3000**. Unit: millisecond.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
RttFailThreshold	Integer	Yes	3	The number of times that the maximum round-trip time (RTT) is exceeded before an alert is triggered. Valid values: **1** to **15**. Default value: **3**.
RttThreshold	Integer	Yes	3	The maximum RTT. Valid values: **-1** and **1** to **5000**. Default value: **-1**. This value indicates that the RTT threshold is not specified. Unit: millisecond.
SmartAGId	String	Yes	sag-i0e85k06v1mzpo****	The ID of the SAG instance.
SrcIpAddr	String	Yes	192.XX.XX.1	The source IP address used in health checks.
SrcPort	Integer	Yes	3333	The source port used in health checks. **Note** This feature is not supported.
Type	String	Yes	ICMP_ECHO	The type of packet used in health checks. Only **ICMP_ECHO** is supported.

Response parameters

Parameter	Type	Example	Description
RequestId	String	F0290F85-8087-4FB7-81F8-84226A4DAAB2	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyHealthCheck
&Description=Health Check 1
&DstIpAddr=192.XX.XX.1
&DstPort=2233
&FailCountThreshold=3
&HcInstanceId=hc-k9id4loo3lup57****
&Name=sss333
&ProbeCount=1
&ProbeInterval=2000
&ProbeTimeout=3000
&RegionId=cn-shanghai
&RttFailThreshold=3
&RttThreshold=3
&SmartAGId=sag-i0e85k06v1mzpo****
&SrcIpAddr=192.XX.XX.1
&SrcPort=3333
&Type=ICMP_ECHO
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyHealthCheckResponse>
  <RequestId>F0290F85-8087-4FB7-81F8-84226A4DAAB2</RequestId>
</ModifyHealthCheckResponse>
```

`JSON` format

```
{"RequestId": "F0290F85-8087-4FB7-81F8-84226A4DAAB2"}
```

Error codes

HttpCode	Error code	Error message	Description
400	HC.InstanceNoFound	The specified network health check instance does not exist.	The error message returned because the specified health check instance does not exist.
400	HC.InvalidDescription	The specified description is invalid.	The error message returned because the specified description of the health check instance is invalid.
400	HC.InvalidDstIpAddr	The specified destination IP address is invalid.	The error message returned because the specified destination IP address is invalid.
400	HC.InvalidDstPort	The specified destination port is invalid.	The error message returned because the specified destination port is invalid.
400	HC.InvalidFailCountThreshold	The maximum number of successive failed probes is exceeded.	The error message returned because the specified number of failed probes before a health check is declared failed is invalid.
400	HC.InvalidName	The specified name is invalid.	The error message returned because the specified name of the health check instance is invalid.

HttpCode	Error code	Error message	Description
400	HC.InvalidProbeCount	The specified number of probes is invalid.	The error message returned because the specified number of probes during a health check is invalid.
400	HC.InvalidProbeInterval	The specified probe interval is invalid.	The error message returned because the specified time interval at which probes are performed is invalid.
400	HC.InvalidProbeTimeout	The specified probe timeout period is invalid.	The error message returned because the specified timeout period of a probe is invalid.
400	HC.InvalidRttFailThreshold	The RTT threshold has been triggered too many times.	The error message returned because the specified number of times that the maximum RTT is exceeded before an alert is triggered is invalid.
400	HC.InvalidRttThreshold	The specified RTT is invalid.	The error message returned because the specified RTT is invalid.
400	HC.InvalidSrcIpAddr	The specified source IP address is invalid.	The error message returned because the specified source IP address is invalid.
400	HC.InvalidSrcPort	The specified source port is invalid.	The error message returned because the specified source port is invalid.
400	HC.InvalidType	The specified type is invalid.	The error message returned because the specified type of health check is invalid.
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the specified SAG instance is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupportFeature	The specified SAG Software instance does not support this feature.	The error message returned because the SAG instance does not support this feature.
400	SAG.NoActive	The specified SAG instance has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
400	SAG.Arrearage	The specified SAG instance has overdue payments. Renew the instance first.	The error message returned because the specified health check instance has an overdue payment. Complete the overdue payment first.
400	HC.AutoGenerated	The health check instance is automatically generated and cannot be modified.	The error message returned because the specified health check instance is automatically orchestrated and cannot be modified.
400	HC.RelatedRoute	The specified health check instance has associated routes and cannot be deleted.	The error message returned because the specified health check instance is already associated with a route and cannot be deleted.

For a list of error codes, visit the API Error Center.

12.2. CreateHealthCheck

Creates a heath check instance for a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates a sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateHealthCheck	The operation that you want to perform. Set the value to **CreateHealthCheck**.
DstIpAddr	String	Yes	192.XX.XX.1	The destination IP address of the health check.
Name	String	Yes	hc-123	The name of the health check instance. The name must be 2 to 100 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-1um5x5nwhilymw****	The ID of the SAG instance.
SrcIpAddr	String	Yes	10.XX.XX.1	The source IP address of the health check instance.
Type	String	Yes	ICMP_ECHO	The type of packet used in the health check. **Note** Only **ICMP_ECHO** is supported.
Description	String	No	hc_123	The description of the health check instance. The description must be 2 to 256 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
DstPort	Integer	No	1333	The destination port of the health check instance. **Note** This feature is not supported.
SrcPort	Integer	No	1344	The source port of the health check. **Note** This feature is not supported.

Parameter	Type	Required	Example	Description
ProbeInterval	Integer	No	2000	The time interval at which probes are performed. The next probe does not start before the current one is completed. Valid values: **1000** to **60000**. Default value: **2000**. Unit: millisecond.
ProbeCount	Integer	No	1	The number of probes performed per health check. Valid values: **1** to **20**. Default value: **1**.
ProbeTimeout	Integer	No	1000	The timeout period of a probe. Valid values: **10** to **30000**. Default value: **1000**. Unit: millisecond.
RttThreshold	Integer	No	1000	The maximum round-trip time (RTT). Valid values: **-1** and **1** to **5000**. Default value: **-1**. This value indicates that the RTT threshold is not specified. Unit: millisecond.
RttFailThreshold	Integer	No	3	The number of times that the maximum RTT is exceeded before an alert is triggered. Valid values: **1** to **15**. Default value: **3**.
FailCountThreshold	Integer	No	3	The maximum number of failed probes before a health check is declared failed. Valid values: **1 to 15**. Default value: **3**.

Response parameters

Parameter	Type	Example	Description
InstanceId	String	hc-rrqoucina3gmpn****	The ID of the health check instance.
RequestId	String	E38E950D-28A4-4C41-9428-A8908EC6AE5C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=CreateHealthCheck
&DstIpAddr=192.XX.XX.1
&Name=hc-123
&RegionId=cn-shanghai
&SmartAGId=sag-1um5x5nwhilymw****
&SrcIpAddr=10.XX.XX.1
&Type=ICMP_ECHO
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateHealthCheckResponse>
  <InstanceId>hc-vfgyz7dv07lthr****</InstanceId>
  <RequestId>0637D6BB-4EAA-4AFD-9EA0-152FA3E943DC</RequestId>
</CreateHealthCheckResponse>
```

`JSON` format

```
{
    "InstanceId": "hc-vfgyz7dv07lthr***",
    "RequestId": "0637D6BB-4EAA-4AFD-9EA0-152FA3E943DC"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	HC.AutoGenerated	The health check instance is automatically generated and cannot be modified.	The error message returned because the specified health check instance is automatically orchestrated and cannot be modified.
400	HC.InstanceNoFound	The specified network health check instance does not exist.	The error message returned because the specified health check instance does not exist.
400	HC.InvalidDescription	The specified description is invalid.	The error message returned because the description of the health check instance is invalid.
400	HC.InvalidDstIpAddr	The specified destination IP address is invalid.	The error message returned because the destination IP address specified for the health check instance is invalid.
400	HC.InvalidDstPort	The specified destination port is invalid.	The error message returned because the destination port specified for the health check instance is invalid.
400	HC.InvalidFailCountThreshold	The maximum number of successive failed probes is exceeded.	The error message returned because the specified number of failed probes before a health check is declared failed is invalid.
400	HC.InvalidName	The specified name is invalid.	The error message returned because the name of the health check instance is invalid.
400	HC.InvalidProbeCount	The specified number of probes is invalid.	The error message returned because the specified number of probes performed during each health check is invalid.

HttpCode	Error code	Error message	Description
400	HC.InvalidProbeInterval	The specified probe interval is invalid.	The error message returned because the time interval at which probes are performed is invalid.
400	HC.InvalidProbeTimeout	The specified probe timeout period is invalid.	The error message returned because the specified timeout period of a probe is invalid.
400	HC.InvalidRttFailThreshold	The RTT threshold has been triggered too many times.	The error message returned because the specified number of times that the maximum RTT is exceeded before an alert is triggered is invalid.
400	HC.InvalidRttThreshold	The specified RTT is invalid.	The error message returned because the specified RTT is invalid.
400	HC.InvalidSrcIpAddr	The specified source IP address is invalid.	The error message returned because the source IP address specified for the health check instance is invalid.
400	HC.InvalidSrcPort	The specified source port is invalid.	The error message returned because the source port specified for the health check instance is invalid.
400	HC.InvalidType	The specified type is invalid.	The error message returned because the specified type of health check is invalid.
400	HC.RelatedRoute	The specified health check instance has associated routes and cannot be deleted.	The error message returned because the specified health check instance is already associated with a route and cannot be deleted.
400	SAG.Arrearage	The specified SAG instance has overdue payments. Renew the instance first.	The error message returned because the specified health check instance has overdue payments. You must complete the overdue payments first.
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the SAG instance ID is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.NoActive	The specified SAG instance has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
400	HC.AmountLimit	The maximum number of health check instances is exceeded.	The error message returned because the number of health check instances that you have created has reached the upper limit. You can submit a ticket to request a quota increase.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
500	InternalError	An error occurred while processing your request.	The error message returned because an unknown error occurred.

For a list of error codes, visit the API Error Center.

12.3. DeleteHealthCheck

You can call this operation to delete a health check instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteHealthCheck	The operation that you want to perform. Set the value to **DeleteHealthCheck**.
HcInstanceId	String	Yes	hc-vfgyz7dv07lthr****	The ID of the health check instance.
RegionId	String	Yes	cn-shanghai	The ID of the region where the health check instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	7F0B079C-2D0E-4ABF-A970-C079F785A09C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteHealthCheck
&HcInstanceId=hc-vfgyz7dv07lthr****
&RegionId=cn-shanghai
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteHealthCheckResponse>
  <RequestId>7F0B079C-2D0E-4ABF-A970-C079F785A09C</RequestId>
</DeleteHealthCheckResponse>
```

`JSON` format

```
{
 "RequestId": "7F0B079C-2D0E-4ABF-A970-C079F785A09C"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	HC.InstanceNoFound	The specified network health check instance does not exist.	The error message returned because the specified health check instance does not exist.

HttpCode	Error code	Error message	Description
400	HC.RelatedRoute	The specified health check instance has associated routes and cannot be deleted.	The error message returned because the specified health check instance is already associated with a route and cannot be deleted.

For a list of error codes, visit the API Error Center.

12.4. DescribeHealthChecks

You can call this operation to query health check instances that are associated with a specific Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeHealthChecks	The operation that you want to perform. Set the value to **DescribeHealthChecks**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-qi0p07ld5q86k3****	The ID of the SAG instance.
HcInstanceId	String	No	hc-ifflm5ygj3diwiu****	The ID of the health check instance
Name	String	No	ddd3333	The name of the health check instance. The name must be 2 to 100 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter or Chinese character.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Maximum value: **50**.

Response parameters

Parameter	Type	Example	Description
HealthChecks	Array		The list of health check instances that are associated with the specified SAG instance.
HealthCheck			

Parameter	Type	Example	Description
Description	String	Health check	The description of the health check instance.
DstIpAddr	String	110.XX.XX.1	The destination IP address used by the health check instance.
DstPort	Integer	33	The destination port used by the health check instance. **Note** This feature is not supported.
FailCountThreshold	Integer	3	The number of failed probes before a health check is declared failed. Valid values: **1** to **15**. Default value: **3**.
HcInstanceId	String	hc-ifflm5ygj3diwi****	The ID of the health check instance.
Name	String	doctest	The name of the health check instance.
ProbeCount	Integer	2	The number of probes performed by a health check. Valid values: **1** to **20**. Default value: **1**.
ProbeInterval	Integer	2000	The time interval at which probes are performed. The next probe does not start before the current one is completed. Valid values: **1000** to **60000**. Default value: **2000**. Unit: millisecond.
ProbeTimeout	Integer	1000	The timeout period of a probe. Valid values: **10** to **30000**. Default value: **1000**. Unit: millisecond.
RelationCount	Integer	3	The number of routes associated with the health check instance.
RttFailThreshold	Integer	3	The number of times that the maximum RTT is exceeded before an alert is triggered. Valid values: **1** to **15**. Default value: **3**.

Parameter	Type	Example	Description
RttThreshold	Integer	45	The RTT. Valid values: **-1** and **1** to **5000**. Default value: **-1**. This value indicates that the RTT threshold is not specified. Unit: millisecond.
SmartAGId	String	sag-qi0p07ld5q86k3****	The ID of the SAG instance.
SrcIpAddr	String	192.XX.XX.1	The source IP address used in health checks.
SrcPort	Integer	334	The source port used in health checks. **Note** This feature is not supported.
Status	String	unknown	The status of the last health check. • **success**: The SAG instance passed the last health check. • **failed**: The SAG instance failed the last health check. • **unknown**: The health check instance has not run a health check.
Type	String	ICMP_ECHO	The type of packet used in health checks.Only **ICMP_ECHO** is supported.
PageNumber	Integer	1	The page number of the returned page. Default value: **1**.
PageSize	Integer	10	The number of entries returned per page. Default value: **10**. Maximum value: **50**.
RequestId	String	0B275FE6-FC86-4921-BC70-1B3DF68B078F	The ID of the request.
TotalCount	Integer	5	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeHealthChecks
&RegionId=cn-shanghai
&SmartAGId=sag-qi0p07ld5q86k3****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeHealthChecksResponse>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>97575E44-B01C-4F8B-B829-3272A312F196</RequestId>
  <PageNumber>1</PageNumber>
  <HealthChecks>
        <HealthCheck>
              <Status>unknown</Status>
              <Description>TEST</Description>
              <SrcPort>44</SrcPort>
              <SrcIpAddr>2.XX.XX.1</SrcIpAddr>
              <FailCountThreshold>3</FailCountThreshold>
              <DstPort>33</DstPort>
              <Name>TEST</Name>
              <ProbeCount>5</ProbeCount>
              <Type>ICMP_ECHO</Type>
              <ProbeTimeout>30</ProbeTimeout>
              <HcInstanceId>hc-l3x9k16ag24d6j****</HcInstanceId>
              <RttThreshold>-1</RttThreshold>
              <ProbeInterval>2000</ProbeInterval>
              <RelationCount>1</RelationCount>
              <SmartAGId>sag-4goc1sj3c978z2****</SmartAGId>
              <RttFailThreshold>5</RttFailThreshold>
              <DstIpAddr>12.XX.XX.1</DstIpAddr>
        </HealthCheck>
  </HealthChecks>
</DescribeHealthChecksResponse>
```

`JSON` format

```
{
 "TotalCount": 1,
 "PageSize": 10,
 "RequestId": "97575E44-B01C-4F8B-B829-3272A312F196",
 "PageNumber": 1,
 "HealthChecks": {
  "HealthCheck": [
   {
    "Status": "unknown",
    "Description": "TEST",
    "SrcPort": 44,
    "SrcIpAddr": "2.XX.XX.1",
    "FailCountThreshold": 3,
    "DstPort": 33,
    "Name": "TEST",
    "ProbeCount": 5,
    "Type": "ICMP_ECHO",
    "ProbeTimeout": 30,
    "HcInstanceId": "hc-l3x9k16ag24d6j****",
    "RttThreshold": -1,
    "ProbeInterval": 2000,
    "RelationCount": 1,
    "SmartAGId": "sag-4goc1sj3c978z2****",
    "RttFailThreshold": 5,
    "DstIpAddr": "12.XX.XX.1"
   }
  ]
 }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceIdEmpty	You must specify the SAG instance ID.	The error message returned because the ID of the specified SAG instance is not specified.
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.

For a list of error codes, visit the API Error Center.

12.5. DescribeHealthCheckAttribute

You can call this operation to query the details of a health check instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeHealthCheckAttribute	The operation that you want to perform. Set the value to **DescribeHealthCheckAttribute**.
HcInstanceId	String	Yes	hc-1k4ucuq77b56x4****	The ID of the health check instance.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-1um5x5nwhilymw****	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
CreateTime	Long	1586759657000	The time when the health check instance was created.
Description	String	hc-123	The description of the health check instance.
DstIpAddr	String	192.XX.XX.1	The destination IP address used by the health check instance.
DstPort	Integer	1223	The destination port used by the health check instance. **Note** This feature is not supported.

Parameter	Type	Example	Description
FailCountThreshold	Integer	3	The number of failed probes before a health check is declared failed. Valid values: **1** to **15**. Default value: **3**.
HcInstanceId	String	hc-1k4ucuq77b56x4****	The ID of the health check instance.
Name	String	bvt-test-03****	The name of the health check instance.
ProbeCount	Integer	3	The number of probes performed per health check. Valid values: **1** to **20**. Default value: **1**.
ProbeInterval	Integer	2000	The time interval at which probes are performed. The next probe does not start before the current one is completed. Valid values: **1000** to **60000**. Default value: **2000**. Unit: millisecond.
ProbeTimeout	Integer	1000	The timeout period of a probe. Valid values: **10** to **30000**. Default value: **1000**. Unit: millisecond.
RequestId	String	DDA08B78-5634-4A83-94E4-5C58FD7EBA19	The ID of the request.
RttFailThreshold	Integer	3	The number of times that the maximum round-trip time (RTT) is exceeded before an alert is triggered. Valid values: **1** to **15**. Default value: **3**.
RttThreshold	Integer	300	The RTT. Value values: **-1** and **1** to **5000**. Default value: **-1**. This value indicates that the RTT threshold is not specified.
SmartAGId	String	sag-1um5x5nwhilymw****	The ID of the SAG instance.
SrcIpAddr	String	10.XX.XX.1	The source IP address used in health checks.

Parameter	Type	Example	Description
SrcPort	Integer	2334	The source port used in health checks. **Note** This feature is not supported.
Type	String	ICMP_ECHO	The type of packet used in health checks. Only **ICMP_ECHO** is supported.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeHealthCheckAttribute
&HcInstanceId=hc-1k4ucuq77b56x4****
&RegionId=cn-shanghai
&SmartAGId=sag-1um5x5nwhilymw****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeHealthCheckAttributeResponse>
  <CreateTime>1586759657000</CreateTime>
  <Description>TEST</Description>
  <SrcPort>44</SrcPort>
  <RequestId>66ECCDF6-7290-44A6-A2D0-3B926CEE82C6</RequestId>
  <SrcIpAddr>2.XX.XX.1</SrcIpAddr>
  <FailCountThreshold>3</FailCountThreshold>
  <DstPort>33</DstPort>
  <Name>TEST</Name>
  <ProbeCount>5</ProbeCount>
  <Type>ICMP_ECHO</Type>
  <ProbeTimeout>30</ProbeTimeout>
  <HcInstanceId>hc-l3x9k16ag24d6j****</HcInstanceId>
  <RttThreshold>-1</RttThreshold>
  <ProbeInterval>2000</ProbeInterval>
  <SmartAGId>sag-4goc1sj3c978z2****</SmartAGId>
  <RttFailThreshold>5</RttFailThreshold>
  <DstIpAddr>12.XX.XX.1</DstIpAddr>
</DescribeHealthCheckAttributeResponse>
```

`JSON` format

```
{
 "CreateTime": 1586759657000,
    "Description": "TEST",
 "SrcPort": 44,
 "RequestId": "66ECCDF6-7290-44A6-A2D0-3B926CEE82C6",
 "SrcIpAddr": "2.XX.XX.1",
 "FailCountThreshold": 3,
 "DstPort": 33,
 "Name": "TEST",
 "ProbeCount": 5,
 "Type": "ICMP_ECHO",
 "ProbeTimeout": 30,
 "HcInstanceId": "hc-l3x9k16ag24d6j****",
 "RttThreshold": -1,
 "ProbeInterval": 2000,
 "SmartAGId": "sag-4goc1sj3c978z2****",
 "RttFailThreshold": 5,
 "DstIpAddr": "12.XX.XX.1"
}
```


Error codes

HttpCode	Error code	Error message	Description
400	HC.InstanceNoFound	The specified network health check instance does not exist.	The error message returned because the specified health check instance does not exist.

For a list of error codes, visit the API Error Center.

13.Configure routes

13.1. ModifySagGlobalRouteProtocol

You can call this operation to globally modify the routing protocol of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagGlobalRouteProtocol	The operation that you want to perform. Set the value to **ModifySagGlobalRouteProtocol**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
RouteProtocol	String	Yes	OSPF	The routing protocol. Valid values: • **STATIC**: the static routing protocol. • **OSPF**: the Open Shortest Path First (OSPF) protocol. • **BGP**: the Border Gateway Protocol (BGP).
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device that is associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	DB0A026C-A8E5-40AB-977E-3A87DD78F694	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagGlobalRouteProtocol
&RegionId=cn-shanghai
&RouteProtocol=OSPF
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagGlobalRouteProtocolResponse>
     <RequestId>DB0A026C-A8E5-40AB-977E-3A87DD78F694</RequestId>
</ModifySagGlobalRouteProtocolResponse>
```

`JSON` format

```
{
"RequestId": "DB0A026C-A8E5-40AB-977E-3A87DD78F694"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

13.2. ModifySagRouteProtocolBgp

Modifies the Border Gateway Protocol (BGP) settings of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifySagRouteProtocolBgp	The operation that you want to perform. Set the value to **ModifySagRouteProtocolBgp**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device.
RouterId	String	Yes	172.XX.XX.1	The ID of the BGP router. Set the value to an IPv4 address.
LocalAs	Long	Yes	65535	The autonomous system number (ASN) to which the SAG device belongs. Valid values: **1 to 4294967295**.
HoldTime	Integer	Yes	9	The hold time. Valid values: **3 to 65535**. Unit: seconds. **Note** When the SAG device establishes a peering connection with a peer device, the hold time of both devices must be the same. If the SAG device does not receive a keepalive or update message from the peer device within the hold time, the connection between the BGP peers is closed.
KeepAlive	Integer	Yes	3	The time interval at which keep-alive packets are sent. Valid values: **0 to 65535**. Unit: seconds.

Response parameters

Parameter	Type	Example	Description
RequestId	String	48868976-45A2-4E87-B3AA-25089B8B7E49	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifySagRouteProtocolBgp
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&RouterId=172.XX.XX.1
&LocalAs=65535
&HoldTime=9
&KeepAlive=3
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ModifySagRouteProtocolBgpResponse>
    <RequestId>48868976-45A2-4E87-B3AA-25089B8B7E49</RequestId>
</ModifySagRouteProtocolBgpResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "48868976-45A2-4E87-B3AA-25089B8B7E49"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the SAG app instance does not support access control lists (ACLs).
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network configurations are not synchronized.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error message returned because the current version of the standby SAG device does not support this feature.

HttpCode	Error code	Error message	Description
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance is not activated. Activate the SAG instance first.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.

For a list of error codes, visit the API Error Center.

13.3. ModifySagRouteProtocolOspf

You can call this operation to modify the Open Shortest Path First (OSPF) configurations of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagRouteProtocolOspf	The operation that you want to perform. Set the value to **ModifySagRouteProtocolOspf**.
AreaId	Integer	Yes	86	The ID of the OSPF area. Valid values: **1 to 2147483647**.
AuthenticationType	String	Yes	NONE	The authentication method. Valid values: • **NONE**: disables authentication. • **CLEARTEXT**: uses plaintext authentication. You must enter the plaintext password. • **MD5**: uses MD5 authentication. You must enter the MD5 key ID and the MD5 key.
DeadTime	Integer	Yes	10	The timeout period that the router waits for a hello packet from the neighbor device before declaring the neighbor device dead. Unit: second. Valid values: **1 to 65535**.
HelloTime	Integer	Yes	3	The time interval at which hello packets are sent. Unit: second. Valid values: **1 to 65535**.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
RouterId	String	Yes	192.XX.XX.1	The ID of the router that has OSPF enabled. The ID is an IPv4 address.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30***	The serial number of the SAG device associated with the SAG instance.
Md5KeyId	Integer	No	7	The ID of the MD5 key. Valid values: **1 to 2147483647**. **Note** If you select **MD5** as the **authentication type**, you must set this parameter.
Md5Key	String	No	5	The value of the MD5 key. Valid values: **1 to 47**. **Note** If you select **MD5** as the **authentication type**, you must set this parameter.
Password	String	No	1212****	The plaintext password. The password must be 1 to 8 characters in length, and can contain letters, digits, hyphens (-), and underscores (_). **Note** If you select **CLEARTEXT** as the **authentication type**, you must set this parameter.

Response parameters

Parameter	Type	Example	Description
RequestId	String	191DC00D-00C0-475C-99B8-ADBB82496405	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagRouteProtocolOspf
&AreaId=86
&AuthenticationType=NONE
&DeadTime=10
&HelloTime=3
&Md5KeyId=7
&RegionId=cn-shanghai
&RouterId=192.XX.XX.1
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30***
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagRouteProtocolOspfResponse>
      <RequestId>191DC00D-00C0-475C-99B8-ADBB82496405</RequestId>
</ModifySagRouteProtocolOspfResponse>
```

`JSON` format

```
{
"RequestId": "191DC00D-00C0-475C-99B8-ADBB82496405"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.

HttpCode	Error code	Error message	Description
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

13.4. ModifySagPortRouteProtocol

You can call this operation to modify the routing protocol of a port.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagPortRouteProtocol	The operation that you want to perform. Set the value to **ModifySagPortRouteProtocol**.
PortName	String	Yes	2	The name of the port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
RouteProtocol	String	Yes	STATIC	The routing protocol. Valid values: • **STATIC**: the static routing protocol. • **OSPF**: the Open Shortest Path First (OSPF) protocol. • **BGP**: the Border Gateway Protocol (BGP).
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.
Vlan	String	No	2	The VLAN ID.
RemoteIp	String	No	192.XX.XX.1	The IP address of the peer device. **Note** When you enable BGP, you must set this parameter.

Parameter	Type	Required	Example	Description
RemoteAs	String	No	12345	The BGP autonomous system number (ASN) of the peer device. **Note** When you enable BGP, you must set this parameter.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagPortRouteProtocol
&PortName=2
&RegionId=cn-shanghai
&RouteProtocol=STATIC
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagPortRouteProtocolResponse>
     <RequestId>CE6642D4-21EB-4168-9BF9-F217953F9892</RequestId>
</ModifySagPortRouteProtocolResponse>
```

`JSON` format

```
{
"RequestId":"CE6642D4-21EB-4168-9BF9-F217953F9892"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.RouteProtocolPortNotExist	The port specified for the dynamic routing protocol does not exist.	The port specified for the dynamic routing protocol does not exist.
400	Sag.EccRouteTypeError	An ECC port supports the BGP protocol only.	A VLAN interface of a leased line port only supports BGP.
400	Sag.RouteTypeNotMatch	The routing protocol type must be the same as the global routing protocol type.	The routing protocol type must be the same as the global routing protocol type.

For a list of error codes, visit the API Error Center.

13.5. ModifySagStaticRoute

You can call this operation to modify a static route.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagStaticRoute	The operation that you want to perform. Set the value to **ModifySagStaticRoute**.
DestinationCidr	String	Yes	192.XX.XX.0/24	The destination CIDR block.
NextHop	String	Yes	192.XX.XX.1	The IP address of the next hop.
PortName	String	Yes	0	The name of the port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.
Vlan	String	No	1	The VLAN ID. Valid values: **0** indicates a physical port.**1 to 4094** indicates that VLANs are supported.

Response parameters

Parameter	Type	Example	Description
RequestId	String	ACA5A9FE-77FA-4C09-980B-5C353160FA4A	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagStaticRoute
&DestinationCidr=192.XX.XX.0/24
&NextHop=192.XX.XX.1
&PortName=0
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagStaticRouteResponse>
     <RequestId>ACA5A9FE-77FA-4C09-980B-5C353160FA4A</RequestId>
</ModifySagStaticRouteResponse>
```

`JSON` format

```
{
"RequestId": "ACA5A9FE-77FA-4C09-980B-5C353160FA4A"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.PortNotExist	The specified port does not exist.	The specified port does not exist.
400	Sag.PortRoleInvalid	The port role is invalid.	The port role is invalid.
400	Sag.EccVlanNotExist	The specified dedicated VLAN does not exist.	VLANs are not enabled for the leased line port.
400	Sag.StaticRouteNotExist	The specified static route does not exist.	The specified static route does not exist.

For a list of error codes, visit the API Error Center.

13.6. CreateSagStaticRoute

You can call this operation to add a static route.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateSagStaticRoute	The operation that you want to perform. Set the value to **CreateSagStaticRoute**.
DestinationCidr	String	Yes	192.XX.XX.0/24	The destination CIDR block.
NextHop	String	Yes	192.XX.XX.1	The IP address of the next hop.
PortName	String	Yes	0	The name of the port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Parameter	Type	Required	Example	Description
Vlan	String	Yes	20	The VLAN ID. Valid values: **0** indicates a physical port.**1 to 4094** indicates that VLANs are supported.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1120228A-E5E1-4E9C-B56D-96887E1A2B2F	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=CreateSagStaticRoute
&DestinationCidr=192.XX.XX.0/24
&NextHop=192.XX.XX.1
&PortName=0
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&Vlan=20
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateSagStaticRouteResponse>
      <RequestId>1120228A-E5E1-4E9C-B56D-96887E1A2B2F</RequestId>
</CreateSagStaticRouteResponse>
```

`JSON` format

```
{
"RequestId": "1120228A-E5E1-4E9C-B56D-96887E1A2B2F"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.PortNotExist	The specified port does not exist.	The specified port does not exist.
400	Sag.PortRoleInvalid	The port role is invalid.	The port role is invalid.
400	Sag.EccVlanNotExist	The specified dedicated VLAN does not exist.	VLANs are not enabled for the leased line port.
400	Sag.StaticRouteExist	The specified static route already exists.	The specified static route already exists.

For a list of error codes, visit the API Error Center.

13.7. DeleteSagStaticRoute

You can call this operation to delete a static route.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteSagStaticRoute	The operation that you want to perform. Set the value to **DeleteSagStaticRoute**.
DestinationCidr	String	Yes	192.XX.XX.0/24	The destination CIDR block.
PortName	String	Yes	0	The name of the port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.
Vlan	String	No	1	The VLAN ID. Valid values: **0** indicates a physical port.**1 to 4094** indicates that VLANs are supported.

Response parameters

Parameter	Type	Example	Description
RequestId	String	A53F71B6-7577-492A-A0CD-C7D3DFFE2D0E	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DeleteSagStaticRoute
&DestinationCidr=192.XX.XX.0/24
&PortName=0
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteSagStaticRouteResponse>
     <RequestId>A53F71B6-7577-492A-A0CD-C7D3DFFE2D0E</RequestId>
</DeleteSagStaticRouteResponse>
```

`JSON` format

```
{
"RequestId": "A53F71B6-7577-492A-A0CD-C7D3DFFE2D0E"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.PortNotExist	The specified port does not exist.	The specified port does not exist.
400	Sag.StaticRouteNotExist	The specified static route does not exist.	The specified static route does not exist.

For a list of error codes, visit the API Error Center.

13.8. DescribeSagStaticRouteList

You can call this operation to obtain the information list of a static route.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagStaticRouteList	The operation that you want to perform. Set the value to **DescribeSagStaticRouteList**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.
StaticRoutes	Array		The information list of the static route.
DestinationCidr	String	192.XX.XX.0/24	The destination CIDR block.

Parameter	Type	Example	Description
NextHop	String	192.XX.XX.1	The IP address of the next hop.
PortName	String	0	The name of the port.
Vlan	String	1	The VLAN ID.
TaskStates	Array		The state of the query task.
CreateTime	String	1586857309000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.
State	String	Succeed	The state of the query task. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagStaticRouteList
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagStaticRouteListResponse>
  <RequestId>4C6825DA-AF71-48A5-A2A2-AE3E38ABC899</RequestId>
  <StaticRoutes>
        <NextHop>2.XX.XX.2</NextHop>
        <Vlan>0</Vlan>
        <PortName>5</PortName>
        <DestinationCidr>1.XX.XX.1/32</DestinationCidr>
  </StaticRoutes>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586857309000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagStaticRouteListResponse>
```

`JSON` format

```
{
    "RequestId": "4C6825DA-AF71-48A5-A2A2-AE3E38ABC899",
    "StaticRoutes": [
        {
            "NextHop": "2.XX.XX.2",
            "Vlan": "0",
            "PortName": "5",
            "DestinationCidr": "1.XX.XX.1/32"
        }
    ],
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586857309000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.

HttpCode	Error code	Error message	Description
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

13.9. DescribeSagGlobalRouteProtocol

You can call this operation to obtain the information about the global routing protocol.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagGlobalRouteProtocol	The operation that you want to perform. Set the value to **DescribeSagGlobalRouteProtocol**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3712F0B2-721E-4FBF-BBEF-888E3BFE0A20	The ID of the request.

Parameter	Type	Example	Description
RouteProtocol	String	STATIC	The routing protocol: • **STATIC**: the static routing protocol. • **OSPF**: the Open Shortest Path First (OSPF) protocol. • **BGP**: the Border Gateway Protocol (BGP).
TaskStates	Array		The state of the query task.
CreateTime	String	1586855592000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.
State	String	Succeed	The state of the query task. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagGlobalRouteProtocol
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<RouteProtocol>OSPF</RouteProtocol>
<RequestId>7FA2EC3A-5261-4D2E-BC4F-CB1CFD7B4CBA</RequestId>
<TaskStates>
    <State>Succeed</State>
    <CreateTime>1586855592000</CreateTime>
    <ErrorCode>200</ErrorCode>
    <ErrorMessage>Successful</ErrorMessage>
</TaskStates>
```

`JSON` format

```
{
    "RouteProtocol": "OSPF",
    "RequestId": "7FA2EC3A-5261-4D2E-BC4F-CB1CFD7B4CBA",
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586855592000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.

HttpCode	Error code	Error message	Description
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

13.10. DescribeSagRouteProtocolBgp

You can call this operation to query the configurations of Border Gateway Protocol (BGP) dynamic routing.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagRouteProtocolBgp	The operation that you want to perform. Set the value to **DescribeSagRouteProtocolBgp**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
HoldTime	Integer	9	The hold time of BGP connections.
KeepAlive	Integer	3	The time interval at which keep-alive packets are transmitted.
LocalAs	Integer	12345	The autonomous system (AS) number to which the SAG device belongs.
RequestId	String	2F39E4FE-B45C-47FF-9921-95780486F52D	The ID of the request.
RouterId	String	192.XX.XX.1	The ID of the router that has BGP enabled.

Parameter	Type	Example	Description
TaskStates	Array		The state of the query task.
CreateTime	String	1586765938000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.
State	String	Succeed	The state of the query task. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagRouteProtocolBgp
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagRouteProtocolBgpResponse>
  <HoldTime>9</HoldTime>
  <RequestId>EF0FDC88-1C6F-4AB7-B5DF-7277D360726F</RequestId>
  <KeepAlive>3</KeepAlive>
  <RouterId>1.XX.XX.1</RouterId>
  <LocalAs>25</LocalAs>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586765938000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagRouteProtocolBgpResponse>
```

`JSON` format

```
{
    "HoldTime": 9,
    "RequestId": "EF0FDC88-1C6F-4AB7-B5DF-7277D360726F",
    "KeepAlive": 3,
    "RouterId": "1.XX.XX.1",
    "LocalAs": 25,
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586765938000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.

HttpCode	Error code	Error message	Description
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

13.11. DescribeSagRouteProtocolOspf

You can call this operation to query the Open Shortest Path First (OSPF) configurations.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagRouteProtocolOspf	The operation that you want to perform. Set the value to **DescribeSagRouteProtocolOspf**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
AreaId	String	10	The ID of the OSPF area.
AreaType	String	NSSA	The type of the OSPF area. **Note** Only the NSSA area type is supported.

Parameter	Type	Example	Description
AuthenticationType	String	MD5	The authentication type. Valid values: • **NONE**: disables authentication. • **CLEARTEXT**: enables plaintext authentication. • **MD5**: uses MD5 authentication.
DeadTime	Integer	40	The timeout period of connections between OSPF peers.
HelloTime	Integer	10	The time interval at which Hello packets are sent.
Md5Key	String	123****	The MD5 key value.
Md5KeyId	Integer	1	The ID of the MD5 key.
RequestId	String	60F9B653-25B7-4511-A3C7-BCBAF462393E	The ID of the request.
RouterId	String	1.XX.XX.1	The ID of the router that has OSPF enabled.
TaskStates	Array		The state of the query task.
CreateTime	String	1586843621000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.

Parameter	Type	Example	Description
State	String	Succeed	The state of the query task. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagRouteProtocolOspf
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagRouteProtocolOspfResponse>
  <RequestId>60F9B653-25B7-4511-A3C7-BCBAF462393E</RequestId>
  <DeadTime>40</DeadTime>
  <Md5KeyId>1</Md5KeyId>
  <AreaId>10</AreaId>
  <RouterId>1.XX.XX.1</RouterId>
  <HelloTime>10</HelloTime>
  <AreaType></AreaType>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586768763000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
  <Md5Key>123****</Md5Key>
  <AuthenticationType>MD5</AuthenticationType>
</DescribeSagRouteProtocolOspfResponse>
```

`JSON` format

```
{
    "RequestId": "60F9B653-25B7-4511-A3C7-BCBAF462393E",
    "DeadTime": 40,
    "Md5KeyId": 1,
    "AreaId": 10,
    "RouterId": "1.XX.XX.1",
    "HelloTime": 10,
    "AreaType": "",
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586768763000,
            "ErrorCode": 200,
            "ErrorMessage": "Successful"
        }
    ],
    "Md5Key": "123****",
    "AuthenticationType": "MD5"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.

HttpCode	Error code	Error message	Description
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

13.12. DescribeSagPortRouteProtocolList

You can call this operation to query a list of the ports that have routing protocols enabled.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagPortRouteProtocolList	The operation that you want to perform. Set the value to **DescribeSagPortRouteProtocolList**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
Ports	Array		The information list of the port.
NeighborIp	String	192.XX.XX.1	The IP address of the neighbor device.
PortName	String	3	The name of the port.
RemoteAs	String	12345	The autonomous system (AS) number to which the SAG device belongs.
RemoteIp	String	192.XX.XX.1	The IP address of the peer device.
RouteProtocol	String	BGP	The routing protocal. Valid values: • **STATIC**: uses a static routing protocol. • **OSPF**: uses the Open Shortest Path First protocol (OSPF). • **BGP**: uses the Border Gateway Protocol (BGP).

Parameter	Type	Example	Description
Status	String	UP	The port state. Valid values: • **UP**: The port is enabled. • **DOWN**: The port is disabled.
Vlan	String	2	The VLAN ID.
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.
TaskStates	Array		The state of the query task.
CreateTime	String	1586843621000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.
State	String	Succeed	The state of the query task. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagPortRouteProtocolList
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagPortRouteProtocolListResponse>
  <RequestId>CAA9089E-9C8E-422A-BB87-72A784A8A906</RequestId>
  <Ports>
        <Status>DOWN</Status>
        <RouteProtocol>STATIC</RouteProtocol>
        <PortName>0</PortName>
  </Ports>
  <Ports>
        <Status>UP</Status>
        <RouteProtocol>OSPF</RouteProtocol>
        <PortName>4</PortName>
  </Ports>
  <Ports>
        <Status>DOWN</Status>
        <RouteProtocol>STATIC</RouteProtocol>
        <PortName>5</PortName>
  </Ports>
  <Ports>
        <RemoteAs></RemoteAs>
        <Status>DOWN</Status>
        <RouteProtocol>STATIC</RouteProtocol>
        <RemoteIp></RemoteIp>
        <Vlan>0</Vlan>
        <PortName>3</PortName>
  </Ports>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586843621000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagPortRouteProtocolListResponse>
```

`JSON` format

```
{
    "RequestId": "CAA9089E-9C8E-422A-BB87-72A784A8A906",
    "Ports": [
        {
            "Status": "DOWN",
            "RouteProtocol": "STATIC",
            "PortName": "0"
        },
        {
            "Status": "UP",
            "RouteProtocol": "OSPF",
            "PortName": "4"
        },
        {
            "Status": "DOWN",
            "RouteProtocol": "STATIC",
            "PortName": "5"
        },
        {
            "RemoteAs": "",
            "Status": "DOWN",
            "RouteProtocol": "STATIC",
            "RemoteIp": "",
            "Vlan": "0",
            "PortName": "3"
        }
    ],
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586843621000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ]
}
```


Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.

HttpCode	Error code	Error message	Description
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

13.13. DescribeSagRouteList

You can call this operation to query the current route list.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagRouteList	The operation that you want to perform. Set the value to **DescribeSagRouteList**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.
Routes	Array		The route list.
ConflictCidrs	List	192.XX.XX.0/24	The list of CIDR blocks that overlap with each other.

Parameter	Type	Example	Description
Cost	String	[110/11]	The routing cost. The first number represents the administrative distance (AD). The second number represents the router metric.
DestinationCidr	String	6.XX.XX.6/32	The destination CIDR block.
NextHop	String	192.XX.XX.1	The next hop.
PortName	String	2	The name of the port. If the port name is -1, data is transferred through a VPN tunnel to Alibaba Cloud.
RouteProtocol	String	STATIC	The routing protocol type. Valid values: • **STATIC**: uses a static routing protocol. • **OSPF**: uses the Open Shortest Path First protocol (OSPF). • **BGP**: uses the Border Gateway Protocol (BGP).

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagRouteList
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagRouteListResponse>
  <RequestId>4D2C2B28-2C90-4D2F-AF44-59355547D70B</RequestId>
  <Routes>
        <RouteProtocol>STATIC</RouteProtocol>
        <NextHop></NextHop>
        <PortName>2</PortName>
        <Cost>[0/0]</Cost>
        <DestinationCidr>192.XX.XX.0/24</DestinationCidr>
  </Routes>
  <Routes>
        <RouteProtocol>STATIC</RouteProtocol>
        <NextHop></NextHop>
        <PortName>4</PortName>
        <Cost>[0/0]</Cost>
        <DestinationCidr>192.XX.XX.0/24</DestinationCidr>
  </Routes>
</DescribeSagRouteListResponse>
```

`JSON` format

```
{
 "RequestId": "4D2C2B28-2C90-4D2F-AF44-59355547D70B",
 "Routes": [
  {
   "RouteProtocol": "STATIC",
   "ConflictCidrs": [],
   "NextHop": "",
   "PortName": "2",
   "Cost": "[0/0]",
   "DestinationCidr": "192.XX.XX.0/24"
  },
  {
   "RouteProtocol": "STATIC",
   "ConflictCidrs": [],
   "NextHop": "",
   "PortName": "4",
   "Cost": "[0/0]",
   "DestinationCidr": "192.XX.XX.0/24"
  }
 ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.

HttpCode	Error code	Error message	Description
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

14.Port configurations

14.1. ModifySagPortRole

You can call this operation to modify the role of a port.

> **Note** If you modify the role of a port, the role configurations set for the port will be deleted.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagPortRole	The operation that you want to perform. Set the value to **ModifySagPortRole**.
PortName	String	Yes	0	The name of the port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.

Parameter	Type	Required	Example	Description
Role	String	Yes	NONE	The role of the port. Valid values: • **NONE**: No role is assigned to the port. • **WAN**: The port is used as a WAN port. By default, port 5 of an SAG device is used as a WAN port and supports a Dynamic Host Configuration Protocol (DHCP) client, PPPoE, or a static IP address to access the Internet. • **LAN**: The port is used as a LAN port. The LAN port supports a DHCP server or a static IP address to connect to a local terminal or switch. • **ECC**: The port is used as a leased line port to connect to a leased line. • **MGT**: The port is used as the management port. By default, port 2 of an SAG device is used as the management port. **Note** • In exclusive mode, the management traffic is separated from the workload traffic. The management port is only used to access the SAG web console and cannot be used to transfer your workload data. You can access the SAG web console only through the management port. • A WAN port can be used when it is connected. If a port is the first one that obtains an IP address over DHCP and can access the Internet, it is set as a WAN port. In the SAG web console, you can set another port as a WAN port.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device that is associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3200E8A3-563F-4FFC-8BDB-0F1263FA69E8	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagPortRole
&PortName=0
&RegionId=cn-shanghai
&Role=NONE
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagPortRoleResponse>
     <RequestId>3200E8A3-563F-4FFC-8BDB-0F1263FA69E8</RequestId>
</ModifySagPortRoleResponse>
```

`JSON` format

```
{
"RequestId":"3200E8A3-563F-4FFC-8BDB-0F1263FA69E8"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.PortNotExist	The specified port does not exist.	The specified port does not exist.
400	Sag.HaPortExist	The specified port is used by the HA configuration.	You must modify high availability (HA) configurations before you can modify the role of the specified port.
400	Sag.PortRoleLimit	The maximum number of ports with the specified role is exceeded.	The role number of the specified port exceeds the upper limit.
400	Sag.PortMgtError	The role of a management port cannot be changed.	The management port role cannot be modified.

For a list of error codes, visit the API Error Center.

14.2. ModifySagWan

Modifies the WAN port configurations of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates a sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagWan	The operation that you want to perform. Set the value to **ModifySagWan**.
IPType	String	Yes	DHCP	The connection type of the WAN port: Valid values: • **DHCP**: dynamically obtains an IP address through the Dynamic Host Configuration Protocol (DHCP) to access the Internet. • **STATIC**: uses a specified IP address to access the Internet. You must specify the IP address, subnet mask, and gateway. • **PPPOE**: uses dial-up connections to access the Internet. You must enter the PPPoE account and password provided by the Internet service provider (ISP).
PortName	String	Yes	0	The name of the WAN port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.
IP	String	No	192.XX.XX.1	The IP address of the WAN port. **Note** If the WAN port uses a static IP address, you must set this parameter.
Mask	String	No	255.255.255.0	The subnet mask of the IP address of the WAN port. **Note** If the WAN port uses a static IP address, you must set this parameter.
Gateway	String	No	192.XX.XX.254	The IP address of the gateway. **Note** • If the WAN port uses a static IP address, you must set this parameter. • After the gateway is configured, the SAG device automatically adds a default route.

Parameter	Type	Required	Example	Description
Username	String	No	P12ppp***	The PPPoE account. The username of the account must be 6 to 30 characters in length, and can contain digits and letters. **Note** If the connection type of the WAN port is PPPoE, you must set this parameter.
Password	String	No	P12ppq***	The PPPoE password. The password must be 6 to 30 characters in length, and can contain digits and letters. **Note** If the connection type of the WAN port is PPPoE, you must set this parameter. If you do not need to modify the password, you can skip this parameter.
Priority	Integer	No	1	The priority of the WAN port. Valid values: **-1** or **1 to 50**. A smaller number indicates a higher priority. **-1** indicates that data transfer is disabled on the WAN port.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagWan
&IPType=DHCP
&PortName=0
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagWanResponse>
     <RequestId>AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545</RequestId>
</ModifySagWanResponse>
```

`JSON` format

```
{
"RequestId": "AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.PortNotExist	The specified port does not exist.	The specified port does not exist.
400	Sag.PortRoleInvalid	The port role is invalid.	The port role is invalid.

For a list of error codes, visit the API Error Center.

14.3. CreateSagExpressConnectInterface

You can call this operation to create a VLAN interface for a leased line.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateSagExpressConnectInterface	The operation that you want to perform. Set the value to **CreateSagExpressConnectInterface**.
IP	String	Yes	192.XX.XX.1	The IP address of the leased line port.
Mask	String	Yes	255.255.255.252	The subnet mask of the IP address of the leased line port.
PortName	String	Yes	5	The name of the leased line port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Parameter	Type	Required	Example	Description
Vlan	String	Yes	10	The VLAN ID of the leased line port. Valid values: **0 to 4094**. **Note** • If the VLAN ID is 0, the leased line port is a physical port and you cannot create a VLAN interface for the leased line port. • If the VLAN ID is 1 to 4094, the leased line port supports VLAN interfaces based on the Layer-3 protocols. • You can create a maximum of 5 VLAN interfaces.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=CreateSagExpressConnectInterface
&IP=192.XX.XX.1
&Mask=255.255.255.252
&PortName=5
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&Vlan=10
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateSagExpressConnectInterfaceResponse>
      <RequestId>AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545</RequestId>
</CreateSagExpressConnectInterfaceResponse>
```

`JSON` format

```
{
"RequestId": "AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.EccVlanOverLimit	The maximum number of VLANs that can be created for the device is exceeded.	The number of VLAN interfaces of the leased line port exceeds the upper limit.
400	Sag.EccVlanExist	The specified VLAN already exists.	The specified VLAN interface already exists.
400	Sag.EccVlanDefault	When VLAN 0 exists, other VLANs cannot be created.	If the VLAN ID is 0, you cannot create a VLAN interface.

For a list of error codes, visit the API Error Center.

14.4. DescribeSagExpressConnectInterfaceList

You can call this operation to query the information about a VLAN interface of a leased line port.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagExpressConnectInterfaceList	The operation that you want to perform. Set the value to **DescribeSagExpressConnectInterfaceList**.
PortName	String	Yes	3	The name of the leased line port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
Interfaces	Array		The information list of the port.
IP	String	192.XX.XX.1	The IP address of the port.
Mask	String	255.255.255.0	The subnet mask of the IP address of the port.
Vlan	String	2	The VLAN ID.

Parameter	Type	Example	Description
RequestId	String	2718F7A6-EA67-41EF-BA39-E9F4A0F5D306	The ID of the request.
TaskStates	Array		The state of the query task.
CreateTime	String	1586835287000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.
State	String	Succeed	The asynchronous task status. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagExpressConnectInterfaceList
&PortName=3
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagExpressConnectInterfaceListResponse>
  <Interfaces>
        <IP>192.XX.XX.1</IP>
        <Mask>255.255.255.0</Mask>
        <Vlan>0</Vlan>
  </Interfaces>
  <RequestId>502682C4-99F2-472A-AD2D-8FDE002E0761</RequestId>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586835287000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagExpressConnectInterfaceListResponse>
```

`JSON` format

```
{
    "Interfaces": [
        {
            "IP": "192.XX.XX.1",
            "Mask": "255.255.255.0",
            "Vlan": "0"
        }
    ],
    "RequestId": "502682C4-99F2-472A-AD2D-8FDE002E0761",
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586835287000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.

HttpCode	Error code	Error message	Description
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

14.5. ModifySagExpressConnectInterface

You can call this operation to modify the VLAN interface configurations of a leased line port.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagExpressConnectInterface	The operation that you want to perform. Set the value to **ModifySagExpressConnectInterface**.
IP	String	Yes	192.XX.XX.1	The IP address of the leased line port.
Mask	String	Yes	255.255.255.252	The subnet mask of the IP address of the leased line port.
PortName	String	Yes	5	The name of the leased line port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Parameter	Type	Required	Example	Description
Vlan	String	Yes	10	The VLAN ID of the leased line port. Valid values: **0 to 4094**. **Note** • If the VLAN ID is 0, the leased line port is a physical port and does not support VLAN interfaces. • If the VLAN ID is 1 to 4094, the leased line port supports VLAN interfaces based on the Layer-3 protocols.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagExpressConnectInterface
&IP=192.XX.XX.1
&Mask=255.255.255.252
&PortName=5
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&Vlan=10
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagExpressConnectInterfaceResponse>
     <RequestId>AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545</RequestId>
</ModifySagExpressConnectInterfaceResponse>
```

`JSON` format

```
{
"RequestId": "AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.EccVlanNotExist	The specified dedicated VLAN does not exist.	The leased line VLAN of the current SAG device does not exist.

For a list of error codes, visit the API Error Center.

14.6. DescribeSagManagementPort

You can call this operation to obtain the management port configurations of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Name	Type	Required	Example	Description
Action	String	No	DescribeSagManagementPort	The operation that you want to perform. Set the value to **DescribeSagManagementPort**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-jbauqzw5ildnud****	The ID of the SAG instance.
SmartAGSn	String	Yes	sage62x021922****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
Gateway	String	192.XX.XX.254	The IP address of the management port gateway.
IP	String	192.XX.XX.10	The IP address of the management port.
Mask	String	255.255.255.0	The subnet mask of the IP address of the management port.
TaskStates	Array		The state of the query task.
CreateTime	String	1586759657000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.

Parameter	Type	Example	Description
State	String	Succeed	Asynchronous task states: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.
RequestId	String	3616AAA9-3A6F-4604-98AF-86753AB7F040	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeSagManagementPort
&RegionId=cn-hangzhou
&SmartAGId=sag-jbauqzw5ildnud****
&SmartAGSn=sage62x021922****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagManagementPortResponse>
  <RequestId>3616AAA9-3A6F-4604-98AF-86753AB7F040</RequestId>
  <Gateway>192.XX.XX.254</Gateway>
  <IP>192.XX.XX.10</IP>
  <Mask>255.255.255.0</Mask>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586759657000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagManagementPortResponse>
```

`JSON` format

```
{
    "RequestId": "3616AAA9-3A6F-4604-98AF-86753AB7F040",
    "Gateway": "192.XX.XX.254",
    "IP": "192.XX.XX.10",
    "Mask": "255.255.255.0",
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586759657000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stopped running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

14.7. DescribeSagWanList

Queries the wired WAN configurations of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates a sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagWanList	The operation that you want to perform. Set the value to **DescribeSagWanList**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.
TaskStates	Array		The state of the query task.
CreateTime	String	1586834861000	The time when the query task was created.
ErrorCode	String	200	The error code. Indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Indicates that the query task is successful.

Parameter	Type	Example	Description
State	String	Succeed	The state of the query task. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.
Wans	Array		The information list of the WAN port.
Gateway	String	192.XX.XX.1	The IP address of the gateway.
IP	String	172.XX.XX.1	The IP address of the WAN port.
IPType	String	STATIC	WAN port. Valid values: • **DHCP**: dynamically obtains an IP address through the Dynamic Host Configuration Protocol (DHCP) to access the Internet. • **STATIC**: uses a specified IP address to access the Internet. • **PPPOE**: uses dial-up connections to access the Internet.
Mask	String	255.255.255.240	The subnet gateway of the IP address of the WAN port.
PortName	String	1	The name of the WAN port.

Parameter	Type	Example	Description
Priority	Integer	1	The priority of the WAN port. Valid values: **-1** or **1 to 50**. A smaller number indicates a higher priority. **Note** If the value is **-1**, data transfer is disabled on the WAN port.
TrafficState	String	active	The status of data transfer on the WAN port. • **active**: Data transfer is enabled on the WAN port. • **standby**: Data transfer is disabled on the WAN port.
Username	String	Usernamexx	The PPPoE account.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagWanList
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagWanListResponse>
  <RequestId>D6E2D7AF-6721-462F-B460-D1CE616BC557</RequestId>
  <Wans>
        <IPType>DHCP</IPType>
        <Username></Username>
        <Gateway>172.XX.XX.254</Gateway>
        <Priority>10</Priority>
        <IP>172.XX.XX.43</IP>
        <Mask>255.255.255.0</Mask>
        <PortName>3</PortName>
  </Wans>
  <Wans>
        <IPType>STATIC</IPType>
        <Username></Username>
        <Gateway>10.XX.XX.254</Gateway>
        <Priority>20</Priority>
        <IP>10.XX.XX.200</IP>
        <Mask>255.255.255.0</Mask>
        <PortName>4</PortName>
  </Wans>
</DescribeSagWanListResponse>
```

`JSON` format

```
{
 "RequestId": "D6E2D7AF-6721-462F-B460-D1CE616BC557",
 "Wans": [
  {
   "IPType": "DHCP",
   "Username": "",
   "Gateway": "172.XX.XX.254",
   "Priority": 10,
   "IP": "172.XX.XX.43",
   "Mask": "255.255.255.0",
   "PortName": "3"
  },
  {
   "IPType": "STATIC",
   "Username": "",
   "Gateway": "10.XX.XX.254",
   "Priority": 20,
   "IP": "10.XX.XX.200",
   "Mask": "255.255.255.0",
   "PortName": "4"
  }
 ]
}
```


Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The error message returned because the SAG APP instance does not support ACLs.
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The error message returned because the specified SAG instance has expired. Renew the SAG instance first.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The error message returned because the specified SAG instance has not been activated. Activate the SAG instance first.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The error message returned because the specified SAG device is not connected to Alibaba Cloud and the system failed to process the request.
400	InstanceNotExit	The specified instance does not exist.	The error message returned because the specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The error message returned because the network configurations are not synchronized.

HttpCode	Error code	Error message	Description
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error code returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error code returned because the current version of the standby SAG device does not support this feature.
400	Sag.PortRoleInvalid	The port role is invalid.	The error message returned because the port role is invalid.
400	Sag.PortMgtError	The role of a management port cannot be changed.	The error message returned because the role of the management port cannot be changed.

For a list of error codes, visit the API Error Center.

14.8. ModifySagManagementPort

You can call this operation to modify the management port configurations of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagManagementPort	The operation that you want to perform. Set the value to **ModifySagManagementPort**.
Gateway	String	Yes	192.XX.XX.254	The IP address of the management port gateway.
IP	String	Yes	192.XX.XX.1	The IP address of the management port.
Mask	String	Yes	255.255.255.0	The subnet mask of the IP address of the management port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6877D55B-08F7-4DA3-916B-32A6FD402E06	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifySagManagementPort
&Gateway=192.XX.XX.254
&IP=192.XX.XX.1
&Mask=255.255.255.0
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagManagementPortResponse>
      <RequestId>6877D55B-08F7-4DA3-916B-32A6FD402E06</RequestId>
</ModifySagManagementPortResponse>
```

`JSON` format

```
{
   "RequestId":"6877D55B-08F7-4DA3-916B-32A6FD402E06"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.PortMgtError	The role of a management port cannot be changed.	The role of the management port cannot be changed.

For a list of error codes, visit the API Error Center.

14.9. DeleteSagExpressConnectInterface

You can call this operation to delete a VLAN interface of a leased line port.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Name	Type	Required	Example	Description
Action	String	No	DeleteSagExpressConnectInterface	The operation that you want to perform. Set the value to **DeleteSagExpressConnectInterface**.
PortName	String	Yes	5	The name of the leased line port.

Name	Type	Required	Example	Description
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.
Vlan	String	Yes	10	The VLAN ID of the leased line port. Valid values: **0 to 4094**. **Note** • If the VLAN ID is 0, the leased line port is a physical port and does not support VLAN interfaces. • If the VLAN ID is 1 to 4094, the leased line port supports VLAN interfaces based on the Layer-3 protocols.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DeleteSagExpressConnectInterface
&PortName=5
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&Vlan=10
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteSagExpressConnectInterfaceResponse>
      <RequestId>AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545</RequestId>
</DeleteSagExpressConnectInterfaceResponse>
```

`JSON` format

```
{
"RequestId": "AFF7E5A6-6897-4FDC-A5A8-1978B5B3E545"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stopped running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

14.10. DescribeSagPortList

You can call this operation to query the information of a physical port.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Name	Type	Required	Example	Description

Name	Type	Required	Example	Description
Action	String	No	DescribeSagPortList	The operation that you want to perform. Set the value to **DescribeSagPortList**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Smart Access Gateway (SAG) instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
Ports	Array		The list of the port information.
Mac	String	c4:00:ad:a2:f5:****	The Mac address of the port.
PortName	String	5	The name of the port.
Role	String	NONE	Port role: • **NONE**: No role is assigned to the port. • **WAN**: The port is used as a WAN port. The WAN port supports a Dynamic Host Configuration Protocol (DHCP) client, PPPoE, or a static IP address to access the Internet. • **LAN**: The port is used as a LAN port. The LAN port supports a DHCP server or a static IP address to connect to a local terminal or switch. • **ECC**: The port is used as a leased line port to connect to a leased line. • **MGT**: The port is used as the management port.
Status	String	Down	Port states: • **Up**: The port is enabled. • **Down**: The port is disabled. • **Unavailable**: The SAG device is disconnected from Alibaba Cloud.
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.
TaskStates	Array		The state of the query task.
CreateTime	String	1586762479000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.

Parameter	Type	Example	Description
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.
State	String	Succeed	Asynchronous task states: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagPortList
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagPortListResponse>
  <RequestId>4363065D-5F04-49D4-A994-C1DF39C7E241</RequestId>
  <Ports>
        <Role>LAN</Role>
        <Status>Down</Status>
        <PortName>0</PortName>
        <Mac>cc:d3:9d:9e:2d:****</Mac>
  </Ports>
  <Ports>
        <Role>NONE</Role>
        <Status>Down</Status>
        <PortName>1</PortName>
        <Mac>cc:d3:9d:9e:2d:****</Mac>
  </Ports>
  <Ports>
        <Role>MGT</Role>
        <Status>Up</Status>
        <PortName>2</PortName>
        <Mac>cc:d3:9d:9e:2d:****</Mac>
  </Ports>
  <Ports>
        <Role>ECC</Role>
        <Status>Down</Status>
        <PortName>3</PortName>
        <Mac>cc:d3:9d:9e:2d:****</Mac>
  </Ports>
  <Ports>
        <Role>LAN</Role>
        <Status>Up</Status>
        <PortName>4</PortName>
        <Mac>cc:d3:9d:9e:2d:****</Mac>
  </Ports>
  <Ports>
        <Role>WAN</Role>
        <Status>Up</Status>
        <PortName>5</PortName>
        <Mac>cc:d3:9d:9e:2d:****</Mac>
  </Ports>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586762479000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagPortListResponse>
```

`JSON` format

```
{
    "RequestId": "4363065D-5F04-49D4-A994-C1DF39C7E241",
    "Ports": [
        {
            "Role": "LAN",
            "Status": "Down",
            "PortName": "0",
            "Mac": "cc:d3:9d:9e:2d:****"
        },
        {
            "Role": "NONE",
            "Status": "Down",
            "PortName": "1",
            "Mac": "cc:d3:9d:9e:2d:****"
        },
        {
            "Role": "MGT",
            "Status": "Up",
            "PortName": "2",
            "Mac": "cc:d3:9d:9e:2d:****"
        },
        {
            "Role": "ECC",
            "Status": "Down",
            "PortName": "3",
            "Mac": "cc:d3:9d:9e:2d:****"
        },
        {
            "Role": "LAN",
            "Status": "Up",
            "PortName": "4",
            "Mac": "cc:d3:9d:9e:2d:****"
        },
        {
            "Role": "WAN",
            "Status": "Up",
            "PortName": "5",
            "Mac": "cc:d3:9d:9e:2d:****"
        }
    ],
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586762479000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ]
}
```


Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stopped running. Renew the SAG instance.

HttpCode	Error code	Error message	Description
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

14.11. ModifySagLan

You can call this operation to modify the LAN port configurations of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagLan	The operation that you want to perform. Set the value to **ModifySagLan**.
IP	String	Yes	192.XX.XX.1	The IP address of the LAN port.
IPType	String	Yes	STATIC	The connection type of the LAN port. Valid values: • **DHCP**: a dynamic IP address. Uses the Dynamic Host Configuration Protocol (DHCP) to dynamically assign an IP address to a connected device. • **STATIC**: a static IP address. Specifies a static IP address for the LAN port.

Parameter	Type	Required	Example	Description
Mask	String	Yes	255.255.255.0	The subnet mask of the LAN port IP address.
PortName	String	Yes	0	The name of the LAN port.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device that is associated with the SAG instance.
StartIp	String	No	192.XX.XX.2	The first IP address of the DHCP pool.
EndIp	String	No	192.XX.XX.254	The last IP address of the DHCP pool.
Lease	String	No	7	The time duration that the IP address is retained after it is assigned through DHCP. Unit: minute. Valid values: **1 to 43200**.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1120228A-E5E1-4E9C-B56D-96887E1A2B2F	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagLan
&IP=192.XX.XX.1
&IPType=STATIC
&Mask=255.255.255.0
&PortName=0
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagLanResponse>
     <RequestId>1120228A-E5E1-4E9C-B56D-96887E1A2B2F</RequestId>
</ModifySagLanResponse>
```

`JSON` format

```
{
"RequestId": "1120228A-E5E1-4E9C-B56D-96887E1A2B2F"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Sag.PortNotExist	The specified port does not exist.	The specified port does not exist.
400	Sag.PortRoleInvalid	The port role is invalid.	The port role is invalid.

For a list of error codes, visit the API Error Center.

14.12. DescribeSagWanSnat

You can call this operation to obtain the SNAT configurations of a WAN port of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagWanSnat	The operation that you want to perform. Set the value to **DescribeSagWanSnat**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CE6642D4-21EB-4168-9BF9-F217953F9892	The ID of the request.
Snat	String	ENABLE	SNAT configurations. • **ENABLE**: SNAT is enabled. • **DISABLE**: SNAT is disabled.
TaskStates	Array		The state of the query task.
CreateTime	String	1586847787000	The time when the query task was created.

Parameter	Type	Example	Description
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.
State	String	Succeed	The asynchronous task status. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=DescribeSagWanSnat
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagWanSnatResponse>
  <RequestId>C1DB5ADD-7AE0-4E15-8C84-7C1CE2B20693</RequestId>
  <Snat>DISABLE</Snat>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586847787000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful</ErrorMessage>
  </TaskStates>
</DescribeSagWanSnatResponse>
```

`JSON` format

```
{
    "RequestId": "C1DB5ADD-7AE0-4E15-8C84-7C1CE2B20693",
    "Snat": "DISABLE",
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586847787000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

14.13. ModifySagWanSnat

You can call this operation to modify the SNAT configurations of a WAN port of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifySagWanSnat	The operation that you want to perform. Set the value to **ModifySagWanSnat**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.
Snat	String	Yes	ENABLE	Specifies whether to enable SNAT. Valid values: • **ENABLE**: enables SNAT. • **DISABLE**: disables SNAT.

Response parameters

Parameter	Type	Example	Description
RequestId	String	96AF7326-B6DE-4188-8638-56A6164F62D9	The ID of the request.

Examples

Sample requests

```
http(s)://smartag.cn-shanghai.aliyuncs.com/? Action=ModifySagWanSnat
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&Snat=ENABLE
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifySagWanSnatResponse>
     <RequestId>96AF7326-B6DE-4188-8638-56A6164F62D9</RequestId>
</ModifySagWanSnatResponse>
```

`JSON` format

```
{
 "RequestId": "96AF7326-B6DE-4188-8638-56A6164F62D9"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidId.SMARTAG	The specified smart access gateway instance ID does not exist.	The specified SAG instance ID does not exist.

For a list of error codes, visit the API Error Center.

14.14. DescribeSagLanList

You can call this operation to query the LAN port configurations of a Smart Access Gateway (SAG) device.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeSagLanList	The operation that you want to perform. Set the value to **DescribeSagLanList**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-whfn****	The ID of the SAG instance.
SmartAGSn	String	Yes	sag32a30****	The serial number of the SAG device associated with the SAG instance.

Response parameters

Parameter	Type	Example	Description
Lans	Array		The information list of the LAN port.
EndIp	String	192.XX.XX.254	The last IP address of the Dynamic Host Configuration Protocol (DHCP) pool.
IP	String	192.XX.XX.1	The IP address of the LAN port.
IPType	String	DHCP	The connection type of the LAN port. **DHCP**: a dynamic IP address. Uses DHCP to dynamically assign an IP address to a connected device. **STATIC**: a static IP address. Specifies a static IP address for the LAN port.
Lease	String	7	The time duration that the IP address is retained after it is assigned through DHCP. Unit: minute.
Mask	String	255.255.255.0	The subnet mask of the LAN port IP address.

Parameter	Type	Example	Description
PortName	String	0	The name of the LAN port.
StartIp	String	192.XX.XX.2	The first IP address of the DHCP pool.
RequestId	String	1120228A-E5E1-4E9C-B56D-96887E1A2B2F	The ID of the request.
TaskStates	Array		The state of the query task.
CreateTime	String	1586852928000	The time when the query task was created.
ErrorCode	String	200	The error code. 200 indicates that the query task is successful.
ErrorMessage	String	Successful	The error message. Successful indicates that the query task is successful.
State	String	Succeed	The asynchronous task status. Valid values: • **Initialized**: The query task is initialized. • **Offline**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud continues to assign the query task to the SAG device. • **Succeed**: Alibaba Cloud has assigned the query task to the SAG device. • **Processing**: Alibaba Cloud is assigning the query task to the SAG device. • **VersionNotSupport**: not supported by the current version of the SAG device. • **BuildRequestError**: not supported by the control and management center in the cloud. • **HardwareError**: Alibaba Cloud failed to assign the query task to the SAG device because the SAG device is faulty. • **TaskNotExist**: The query task does not exist. • **OfflineNotConfiged**: The SAG device is disconnected from Alibaba Cloud and Alibaba Cloud has not assigned the query task to the SAG device. When the SAG device is connected to Alibaba Cloud, Alibaba Cloud does not assign the query task to the SAG device.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeSagLanList
&RegionId=cn-shanghai
&SmartAGId=sag-whfn****
&SmartAGSn=sag32a30****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeSagLanListResponse>
  <RequestId>ADDEF8CA-D96F-4002-812A-36FDF4114135</RequestId>
  <TaskStates>
        <State>Succeed</State>
        <CreateTime>1586869664000</CreateTime>
        <ErrorCode>200</ErrorCode>
        <ErrorMessage>Successful. </ErrorMessage>
  </TaskStates>
  <Lans>
        <IPType>STATIC</IPType>
        <IP>192.XX.XX.1</IP>
        <Mask>255.255.255.0</Mask>
        <PortName>0</PortName>
  </Lans>
  <Lans>
        <IPType>STATIC</IPType>
        <IP>172.XX.XX.10</IP>
        <Mask>255.255.255.0</Mask>
        <PortName>4</PortName>
  </Lans>
</DescribeSagLanListResponse>
```

`JSON` format

```
{
    "RequestId": "ADDEF8CA-D96F-4002-812A-36FDF4114135",
    "TaskStates": [
        {
            "State": "Succeed",
            "CreateTime": 1586869664000,
            "ErrorCode": "200",
            "ErrorMessage": "Successful"
        }
    ],
    "Lans": [
        {
            "IPType": "STATIC",
            "IP": "192.XX.XX.1",
            "Mask": "255.255.255.0",
            "PortName": "0"
        },
        {
            "IPType": "STATIC",
            "IP": "172.XX.XX.10",
            "Mask": "255.255.255.0",
            "PortName": "4"
        }
    ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SAG.InstanceNoFound	The specified SAG instance does not exist.	The specified SAG instance does not exist.
400	SAG.SoftwareNotSupport	The specified SAG software edition instance does not support ACL.	The SAG APP instance does not support access control lists (ACLs).

HttpCode	Error code	Error message	Description
500	SmartAccessGatewayInArrears	The specified Smart Access Gateway has expired.	The specified SAG instance has expired and stops running. Renew the SAG instance.
500	SmartAccessGatewayNotActivated	The specified Smart Access Gateway has not been activated.	The specified SAG instance is not activated. Activate the SAG instance.
403	SmartAccessGatewayNotOnline	The specified smart access gateway is not online.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
500	SmartAccessGatewayOffline	The request cannot be completed. The Smart Access Gateway is offline.	The system failed to process the request because the specified SAG device is not connected to Alibaba Cloud.
400	InstanceNotExit	The specified instance does not exist.	The specified SAG instance does not exist.
400	ConfigUnsynchronized	The network configuration is not synchronized.	The network configurations are not synchronized.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The current version of the SAG device does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

15.DPI management

15.1. UpdateSmartAGDpiAttribute

Enables or disables the deep packet inspection (DPI) feature for a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UpdateSmartAGDpiAttribute	The operation that you want to perform. Set the value to **UpdateSmartAGDpiAttribute**.
DpiEnabled	Boolean	Yes	true	Specifies whether to enable the DPI feature for the SAG instance. Valid values: • **true**: enables DPI • **false**: disables DPI
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-tq3sazs17smldn****	The ID of the SAG instance.
ClientToken	String	No	02fb3da4-130e****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to check the validity of the request without actually making the request. Valid values: • **true**: checks the validity of the request but does not enable or disable the DPI feature. Check items include the request format, instance status, and whether the required parameters are set. If the request fails the check, an error message is returned. If the request passes the check, the ID of the request is returned. • **false**: makes the request and enables or disables the DPI feature after the request passes the check. This is the default value.

Response parameters

Parameter	Type	Example	Description
RequestId	String	0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=UpdateSmartAGDpiAttribute
&DpiEnabled=true
&RegionId=cn-shanghai
&SmartAGId=sag-tq3sazs17smldn****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateSmartAGDpiAttributeResponse>
  <RequestId>0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50</RequestId>
</UpdateSmartAGDpiAttributeResponse>
```

`JSON` format

```
{"RequestId":"0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50"}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidSmartAGId.NotFound	The specified SmartAGId does not exist.	The error message returned because the specified SAG instance ID does not exist.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error message returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error code returned because the current version of the standby SAG device does not support this feature.

For a list of error codes, visit the API Error Center.

15.2. ListDpiSignatures

Queries application information in a specified region, information about a specified application group, or information about applications supported by a specified Smart Access Gateway (SAG) instance in a specified region.

Background information

This operation supports the following features:

- Queries the information about all applications supported by the SAG instance in a specified region.
- Queries the information about an application by application ID in a specified region.
- Queries the information about an application by application name in a specified region.
- Queries the information about an application group by group ID in a specified region.

If this is the first time you call this operation, we recommend that you query all applications supported by the SAG instance in the specified region by region ID. Then, you can query the information about a specified application.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListDpiSignatures	The operation that you want to perform. Set the value to **ListDpiSignatures**.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the application or application group belongs. You can call the DescribeRegions operation to query the most recent region list.
NextToken	String	No	caeba0bbb2****	The token used to query the next page.
MaxResults	Integer	No	20	The number of entries to return on each page. Valid values: **1** to **100**. Default value: **20**.
DpiSignatureIds.N	RepeatList	No	235	The ID of the application.
DpiSignatureNames.N	RepeatList	No	EdgeCast	The name of the application.
DpiGroupId	String	No	20	The ID of the application group.

Response parameters

Parameter	Type	Example	Description
DpiSignature	Array of DpiSignature		The information about the application.
DpiGroupId	String	20	The ID of the application group to which the application belongs.
DpiSignatureId	String	235	The ID of the application.
DpiSignatureName	String	EdgeCast	The name of the application.
MinEngineVersion	String	0-0.0.1	The earliest version of engine that supports the application.
MinSignatureDbVersion	String	20201117_1_0-0.0.1	The earliest version of signature database that supports the application.

Parameter	Type	Example	Description
NextToken	String	FFrMV38kR4****	The token returned for the next query.
RequestId	String	63081123-B7C0-4BC9-B9E5-59E77A616EC9	The ID of the request.
TotalCount	Integer	1	The total number of entries returned on the current page.

Examples

Sample requests

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

Sample success responses

`XML` format

```
<ListDpiSignaturesResponse>
  <TotalCount>1</TotalCount>
  <RequestId>63081123-B7C0-4BC9-B9E5-59E77A616EC9</RequestId>
  <NextToken>FFrMV38kR4****</NextToken>
  <DpiSignature>
        <MinEngineVersion>0-0.0.1</MinEngineVersion>
        <MinSignatureDbVersion>20201117_1_0-0.0.1</MinSignatureDbVersion>
        <DpiSignatureId>1</DpiSignatureId>
        <DpiSignatureName>Baidu</DpiSignatureName>
        <DpiGroupId>20</DpiGroupId>
  </DpiSignature>
</ListDpiSignaturesResponse>
```

`JSON` format

```
{
 "TotalCount": 1,
 "RequestId": "63081123-B7C0-4BC9-B9E5-59E77A616EC9",
 "NextToken": "FFrMV38kR4****",
 "DpiSignature": [
  {
   "MinEngineVersion": "0-0.0.1",
   "MinSignatureDbVersion": "20201117_1_0-0.0.1",
   "DpiSignatureId": "1",
   "DpiSignatureName": "Baidu",
   "DpiGroupId": "20"
  }
 ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

15.3. ListDpiGroups

Queries the information about application groups supported by Smart Access Gateway (SAG) instances in a specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListDpiGroups	The operation that you want to perform. Set the value to **ListDpiGroups**.
RegionId	String	Yes	cn-shanghai	The ID of the region to which the application groups belong. You can call the DescribeRegions to query the most recent region list.
NextToken	String	No	FFPSpX59Eb****	The token used to query the next page.
MaxResults	Integer	No	3	The number of entries to return on each page. Valid values: **1** to **100**. Default value: **20**.
DpiGroupIds.N	RepeatList	No	1	The ID of the application group. You can query information about one or more application groups by group ID. You can specify at most 10 group IDs in each call.
DpiGroupNames.N	RepeatList	No	P2P	The name of the application group. You can query information about one or more application groups by group name. You can specify at most 10 group names in each call.

Response parameters

Parameter	Type	Example	Description
DpiGroup	Array of DpiGroup		The information about the application group.
DpiGroupId	String	1	The ID of the application group.
DpiGroupName	String	P2P	The name of the application group.
MinEngineVersion	String	0-0.0.1	The earliest version of engine that supports the application group.
MinSignatureDbVersion	String	20201117_1_0-0.0.1	The earliest version of signature database that supports the application group.
NextToken	String	FFPSpX59Ebw****	The token returned for the next query.

Parameter	Type	Example	Description
RequestId	String	EC184A86-3C93-49D6-BB34-6C193E14D37F	The ID of the request.
TotalCount	Integer	22	The total number of entries returned.

Examples

Sample requests

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

Sample success responses

`XML` format

```
<ListDpiGroupsResponse>
  <TotalCount>22</TotalCount>
  <RequestId>9E753114-BAF3-4676-9572-377FED18446D</RequestId>
  <NextToken>FFPSpX59Ebw****</NextToken>
  <DpiGroup>
        <MinEngineVersion>0-0.0.1</MinEngineVersion>
        <DpiGroupName>P2P</DpiGroupName>
        <MinSignatureDbVersion>20201117_1_0-0.0.1</MinSignatureDbVersion>
        <DpiGroupId>1</DpiGroupId>
  </DpiGroup>
  <DpiGroup>
        <MinEngineVersion>0-0.0.1</MinEngineVersion>
        <DpiGroupName>VoIP</DpiGroupName>
        <MinSignatureDbVersion>20201117_1_0-0.0.1</MinSignatureDbVersion>
        <DpiGroupId>2</DpiGroupId>
  </DpiGroup>
</ListDpiGroupsResponse>
```

`JSON` format

```
{
 "TotalCount": 22,
 "RequestId": "9E753114-BAF3-4676-9572-377FED18446D",
 "NextToken": "FFPSpX59Ebw****",
 "DpiGroup": [
  {
   "MinEngineVersion": "0-0.0.1",
   "DpiGroupName": "P2P",
   "MinSignatureDbVersion": "20201117_1_0-0.0.1",
   "DpiGroupId": "1"
  },
  {
   "MinEngineVersion": "0-0.0.1",
   "DpiGroupName": "VoIP",
   "MinSignatureDbVersion": "20201117_1_0-0.0.1",
   "DpiGroupId": "2"
  }
 ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

15.4. DisableSmartAGDpiMonitor

Disables the deep packet inspection (DPI)-based monitoring feature for a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DisableSmartAGDpiMonitor	The operation that you want to perform. Set the value to **DisableSmartAGDpiMonitor**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-vwmylqc9521p5l****	The ID of the SAG instance.
ClientToken	String	No	02fb3da4-130****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to check the validity of the request without actually making the request. Valid values: • **true**: checks the validity of the request but does not enable or disables the DPI feature for the SAG instance. Check items include the request format, instance status, and whether the required parameters are set. If the request fails the check, an error message is returned. If the request passes the request, the ID of the request is returned. • **false**: makes the request and disables the DPI feature for the SAG instance after the request passes the check. This is the default value.

Response parameters

Parameter	Type	Example	Description
RequestId	String	64966488-B3E3-41E2-9570-4596117EC12E	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DisableSmartAGDpiMonitor
&RegionId=cn-shanghai
&SmartAGId=sag-vwmylqc9521p51****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DisableSmartAGDpiMonitorResponse>
  <RequestId>64966488-B3E3-41E2-9570-4596117EC12E</RequestId>
</DisableSmartAGDpiMonitorResponse>
```

`JSON` format

```
{"RequestId":"64966488-B3E3-41E2-9570-4596117EC12E"}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidSmartAGId.NotFound	The specified SmartAGId does not exist.	The error message returned because the specified SAG instance ID does not exist.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error code returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error code returned because the current version of the standby SAG device does not support this feature.
400	IncorrectStatus	The instance status is invalid.	The error message returned because the SAG instance is in an invalid state.

For a list of error codes, visit the API Error Center.

15.5. EnableSmartAGDpiMonitor

Enables the deep packet inspection (DPI)-based monitoring feature for a Smart Access Gateway (SAG) instance.

Prerequisites

- The DPI feature is enabled for the SAG instance. For more information, see UpdateSmartAGDpiAttribute.
- Log Service is activated. For more information, see Quick Start.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
Action	String	No	EnableSmartAGDpiMonitor	The operation that you want to perform. Set the value to **EnableSmartAGDpiMonitor**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SlsLogStore	String	Yes	test2	The name of the Logstore.
SlsProjectName	String	Yes	test1	The name of the Log Service project.
SmartAGId	String	Yes	sag-vwmylqc9521p5l****	The ID of the SAG instance.
ClientToken	String	No	02fb3da4-130e-11e9****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	true	Specifies whether to check the validity of the request without actually making the request. Valid values: • **true**: checks the validity of the request but does not enable or disables the DPI feature for the SAG instance. Check items include the request format, instance status, and whether the required parameters are set. If the request fails the check, an error message is returned. If the request passes the request, the ID of the request is returned. • **false**: makes the request and enables the DPI feature for the SAG instance after the request passes the check. This is the default value.

Response parameters

Parameter	Type	Example	Description
RequestId	String	64966488-B3E3-41E2-9570-4596117EC12E	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=EnableSmartAGDpiMonitor
&RegionId=cn-shanghai
&SlsLogStore=test2
&SlsProjectName=test1
&SmartAGId=sag-vwmylqc9521p5l****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<EnableSmartAGDpiMonitorResponse>
  <RequestId>64966488-B3E3-41E2-9570-4596117EC12E</RequestId>
</EnableSmartAGDpiMonitorResponse>
```

`JSON` format

```
{"RequestId":"64966488-B3E3-41E2-9570-4596117EC12E"}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidSmartAGId.NotFound	The specified SmartAGId does not exist.	The error message returned because the specified SAG instance ID does not exist.
403	FeatureNotSupport	The current edition of the smart access gateway does not support this feature.	The error message returned because the current version of the specified SAG instance does not support this feature.
403	FeatureNotSupportForActiveSmartAG	The current edition of the active smart access gateway does not support this feature.	The error code returned because the current version of the active SAG device does not support this feature.
403	FeatureNotSupportForStandBySmartAG	The current edition of the standby smart access gateway does not support this feature.	The error code returned because the current version of the standby SAG device does not support this feature.
400	CreateProjectFailed	Failed to create the SLS project.	The error message returned because the Log Service project failed to be created.
400	IncorrectStatus	The instance status is invalid.	The error message returned because the SAG instance is in an invalid state.

For a list of error codes, visit the API Error Center.

15.6. GetSmartAGDpiAttribute

Queries the settings of the deep packet inspection (DPI) feature for a Smart Access Gateway (SAG) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	GetSmartAGDpiAttribute	The operation that you want to perform. Set the value to **GetSmartAGDpiAttribute**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.

Parameter	Type	Required	Example	Description
SmartAGId	String	Yes	sag-tq3sazs17smldn****	The ID of the SAG instance.

Response parameters

Parameter	Type	Example	Description
DpiMonitorStatus	String	Inactive	The status of the DPI-based monitoring feature. Valid values: • **Active**: enabled • **Inactive**: disabled
DpiStatus	String	On	The status of the DPI feature. Valid values: • **On**: enabled • **Off**: disabled
LogstoreName	String	test1	The name of the Log Service Logstore that is associated with the DPI feature.
ProjectName	String	test2	The name of the Log Service project that is associated with the DPI feature.
RequestId	String	B2997DC4-F1A2-418B-81FC-C8892CD31CFF	The ID of the request.
SlsRegion	String	cn-shanghai	The region where Log Service is deployed.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=GetSmartAGDpiAttribute
&RegionId=cn-shanghai
&SmartAGId=sag-tq3sazs17smldn****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<GetSmartAGDpiAttributeResponse>
  <RequestId>B2997DC4-F1A2-418B-81FC-C8892CD31CFF</RequestId>
  <SlsRegion>cn-shanghai</SlsRegion>
  <DpiMonitorStatus>Inactive</DpiMonitorStatus>
  <DpiStatus>On</DpiStatus>
</GetSmartAGDpiAttributeResponse>
```

`JSON` format

```
{
 "RequestId": "B2997DC4-F1A2-418B-81FC-C8892CD31CFF",
 "SlsRegion": "cn-shanghai",
 "DpiMonitorStatus": "Inactive",
 "DpiStatus": "On"
}
```

Error codes

For a list of error codes, visit the API Error Center.

15.7. ListDpiConfigError

Queries configuration errors of the deep packet inspection feature (DPI).

Background information

If you have configured an application-aware access control list (ACL) or a quality of service (QoS) policy and associated it with a Smart Access Gateway (SAG) instance, you can call this operation to query whether the ACL rules or 5-tuples in the QoS policy are applied to the SAG instance. If settings are not applied to the SAG instance, the error information is returned.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListDpiConfigError	The operation that you want to perform. Set the value to **ListDpiConfigError**.
DpiConfigType	String	Yes	qos	The type of instance for which the DPI feature is configured. Valid values: • **acl**: ACL • **qos**: QoS policy
RegionId	String	Yes	cn-shanghai	The ID of the region where the SAG instance is deployed.
SmartAGId	String	Yes	sag-1e8sgws6b133b8****	The ID of the SAG instance.
RuleInstanceId	String	No	qos-1strcafl4wghpb****	The ID of the instance for which the DPI feature is configured.
NextToken	String	No	caeba0bbb2be03f84eb48b699f0a****	The token used to query the next page.
MaxResults	Integer	No	10	The maximum number of entries to return on each page. Valid values: **1** to **100**. Default value: **10**.

Response parameters

Parameter	Type	Example	Description
DpiConfigError	Array of DpiConfigError		The information about the configuration errors.

Parameter	Type	Example	Description
ErrorType	String	DeviceNotSupported	The type of the configuration error. Valid values: • **DeviceNotSupported**: The SAG device does not support the DPI feature. • **VersionNotSupported**: The version of the DPI feature is outdated. • **NotEnable**: The DPI feature is disabled on the SAG device.
RuleConfigErrorList	Array of RuleConfigErrorList		The information about the DPI configuration errors.
DpiGroupIds	List	1	The IDs of the application groups that have configuration errors. You can call the ListDpiGroups operation to query application IDs and information.
DpiSignatureIds	List	1	The IDs of applications that have configuration errors. You can call the ListDpiSignatures operation to query application IDs and information.
RuleId	String	qospy-axud4s62gz632b****	The IDs of rules that are applied to applications with configuration errors. • If you make the request to query configuration errors of ACLs, the IDs of ACL rules that have configuration errors are returned. • If you make the request to query configuration errors of QoS polices, the IDs of the 5-tuples in the QoS polices that have configuration errors are returned.
SN	String	sag-2160808****	The serial number (SN) of the SAG device.
SmartAGId	String	sag-1e8sgws6b133b8****	The ID of the SAG instance.
MaxResults	Integer	10	The maximum number of entries returned per page.
NextToken	String	caeba0bbb2be03f84eb48b699f0a****	The token returned for the next page.
RequestId	String	F47B5293-27B6-48EF-A9C6-E90A41449813	The ID of the request.
Total	Integer	1	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ListDpiConfigError
&DpiConfigType=qos
&RegionId=cn-shanghai
&SmartAGId=sag-1e8sgws6b133b8****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ListDpiConfigErrorResponse>
  <RequestId>27A5B768-4366-4EF3-9524-7FD51331B1DC</RequestId>
  <Total>1</Total>
  <MaxResults>10</MaxResults>
  <DpiConfigError>
        <ErrorType>DeviceNotSupported</ErrorType>
        <RuleConfigErrorList>
              <RuleId>qospy-axud4s62gz632b****</RuleId>
              <DpiGroupIds>1</DpiGroupIds>
        </RuleConfigErrorList>
        <SN>sage62x0526****</SN>
        <SmartAGId>sag-4d6i45zess8nj4****</SmartAGId>
  </DpiConfigError>
</ListDpiConfigErrorResponse>
```

`JSON` format

```
{
 "RequestId": "27A5B768-4366-4EF3-9524-7FD51331B1DC",
 "Total": 1,
 "MaxResults": 10,
 "DpiConfigError": [
  {
   "ErrorType": "DeviceNotSupported",
   "RuleConfigErrorList": [
    {
     "DpiSignatureIds": [],
     "RuleId": "qospy-axud4s62gz632b****",
     "DpiGroupIds": [
      "1"
     ]
    }
   ],
   "SN": "sage62x0526****",
   "SmartAGId": "sag-4d6i45zess8nj4****"
  }
 ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

15.8. GetAclAttribute

Queries configuration errors of the deep packet inspection (DPI) feature for a specified access control list (ACL).

Prerequisites

- An application-aware ACL is created. For more information, see AddACLRule.
- The application-aware ACL is applied to a Smart Access Gateway (SAG) instance. For more information, see AssociateACL.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetAclAttribute	The operation that you want to perform. Set the value to **GetAclAttribute**.
AclId	String	Yes	acl-xhwhyuo43l0n*****	The ID of the ACL.
RegionId	String	Yes	cn-shanghai	The ID of the region where the ACL is deployed.

Response parameters

Parameter	Type	Example	Description
AclId	String	acl-xhwhyuo43l0n*****	The ID of the ACL.
AclName	String	dpi_test	The name of the ACL.
ErrorConfigSmartAGCount	Integer	0	The number of SAG devices that are associated with the ACL who has DPI configuration errors. You can call the ListDpiConfigError operation to query exception details and SAG device information.
RequestId	String	5D2013F0-85AB-4332-9094-8023A598C2C1	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=GetAclAttribute
&AclId=acl-xhwhyuo43l0n*****
&RegionId=cn-shanghai
&<Common request parameters>
```

Sample success responses

`XML` format

```
<GetAclAttributeResponse>
  <RequestId>5D2013F0-85AB-4332-9094-8023A598C2C1</RequestId>
  <AclId>acl-j8s80200h3cli****</AclId>
  <ErrorConfigSmartAGCount>0</ErrorConfigSmartAGCount>
  <AclName>dpi_test</AclName>
</GetAclAttributeResponse>
```

`JSON` format

```
{
 "RequestId": "5D2013F0-85AB-4332-9094-8023A598C2C1",
 "AclId": "acl-j8s80200h3cli****",
 "ErrorConfigSmartAGCount": 0,
 "AclName": "dpi_test"
}
```

Error codes

For a list of error codes, visit the API Error Center.