

CloudOpera IES API 介绍

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华为 CloudOpera IES APIs 介绍

分类	API 名称	调用方法	URI
业务目录	查询业务定义清单	GET	/catalog/v1/servicedefs
	查询业务定义详细信息	GET	/catalog/v1/servicedefs/{servicedefId}/details
业务管理	创建业务	POST	/servicemanager/v1/services
	查询业务列表	GET	/servicemanager/v1/services
	查询指定的业务信息	GET	/servicemanager/v1/services/{serviceId}
	修改业务	PUT	/servicemanager/v1/services/{serviceId}
	删除业务	DEL	/servicemanager/v1/services/{serviceId}
CloudVPN 监控	查询指定专线的流速或带宽利用率	GET	/cloudvpnwatch/v1/traffic/connections/{connection-name}/{metric}

API 场景1: 创建&激活CloudVPN业务

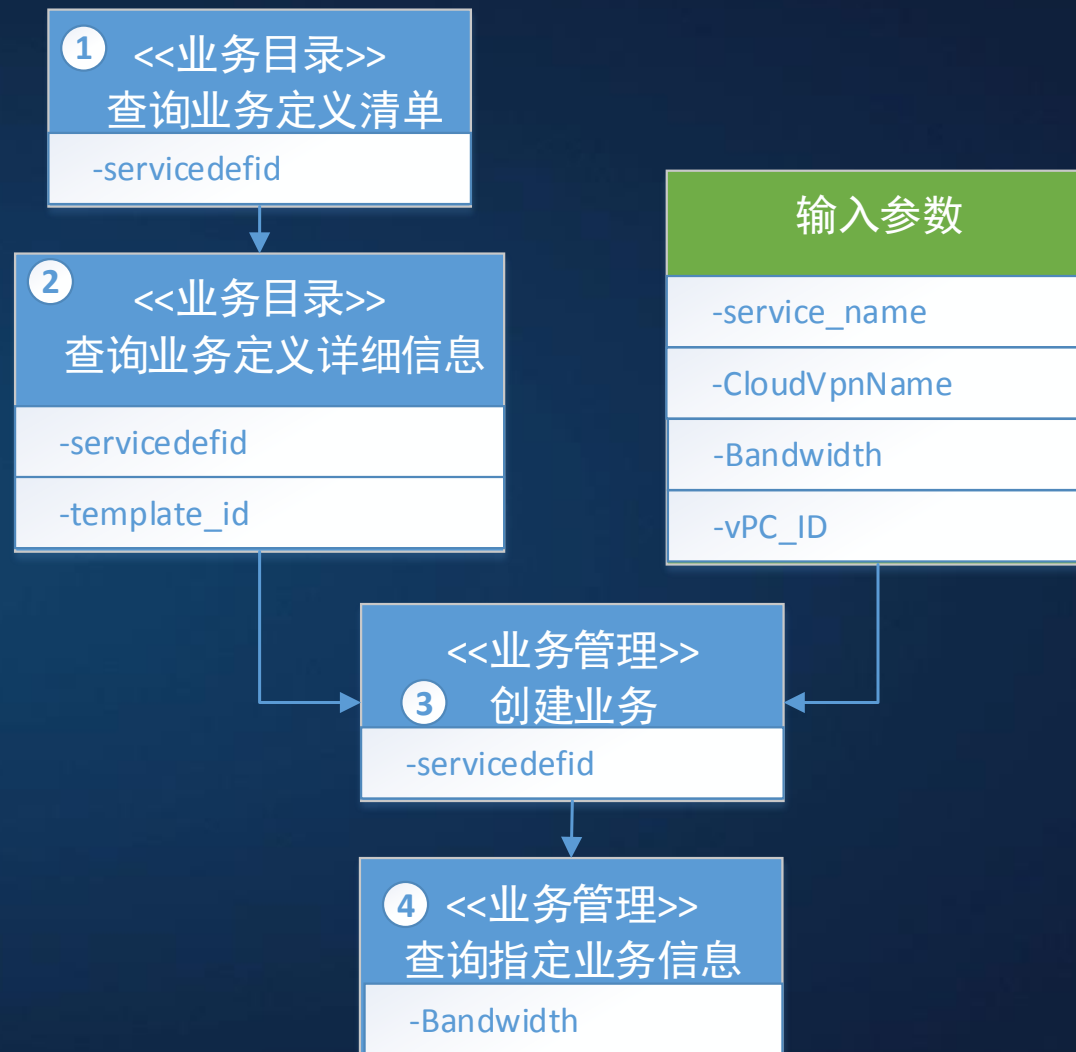
① 查询已经存在的业务定义清单并获取到“**servicedefid**”

② 查询上述业务定义对应的“**template_id**”

③ 创建**CloudVPN**

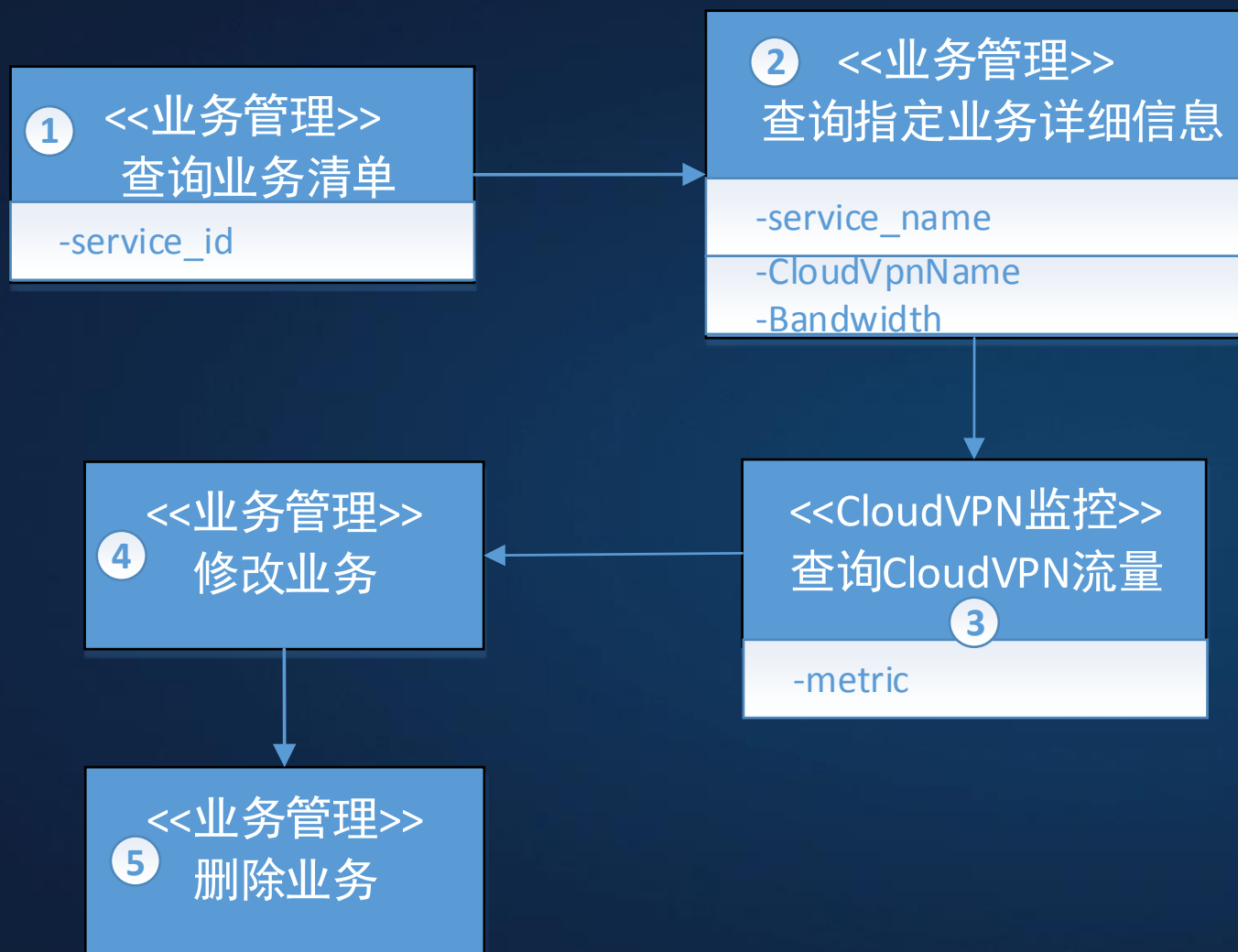
业务完成业务开通并返回“**service_id**”

④ 确认业务状态和带宽



注意：端到端的创建并开通**CloudVPN**业务会耗时10分钟左右。

API 场景2: 弹性扩展CloudVPN网络



① 查询获得CloudVPN业务对应的“**service_id**”;

② 查询上述业务的详细信息, 包括:

“**CloudVpnName**”

“**bandwidth**”

“**service_name**”;

③ 监控CloudVPN的流量;

④ 修改CloudVPN对应带宽

⑤ 删除CloudVPN业务.

查询业务定义清单

GET /servicedefs

ServiceCatalog

Summary

Query NS Definitions

Description

Query all the NS definitions available to the current tenant. curl:

```
curl -i -H "Content-Type:application/json" -X GET  
"https://accessip:port/rest/catalog/v1/servicedefs"
```

Responses

Code	Description	Schema
200	Operation successful	<pre>↔ GetServiceDefinitionRsp { totalNum: ▶ integer pageSize: ▶ integer totalPageNum: ▶ integer currentPage: ▶ integer data: ▶ [] }</pre>
400	Parameter error	
500	Internal error	

API详解: 业务目录API

查询业务定义清单示例

➤ 请求示例:

GET /rest/catalog/v1/servicedefs HTTP/1.1

Host: 218.4.33.207:17100

X-Auth-Token:

```
MIIETAYJKoZIhvcNAQcCoIIPTCCBDkCAQExDTALBgIghkgBZQ  
MEAgEwggKaBgkqhkiG9w0BBwGgggKLBIICh3siZXhwaXJlc19  
hdCI6IjIwMTctMDQzMjVUMjE6NTE6
```

Authorization: Bearer 6a8cbc0e-e93c-4684-9a39-
40d085bd657e

Cache-Control: no-cache

Postman-Token: 03ebe5c2-4789-0eef-d8bd-ab6cc02b2568

✓ 返回当前租户对应的“**servicedefId**”。

➤ 响应消息体:

Pretty

Raw

Preview

JSON



```
1 {  
2   "currentPage": 0,  
3   "data": [  
4     {  
5       "categories": null,  
6       "createdAt": 1493948644546,  
7       "creator": "om_team",  
8       "description": "IES_TMF_OpenHack_Nice",  
9       "domain": "stack",  
10      "format": "JSON",  
11      "formatVersion": "2017-05-5",  
12      "name": "IES_TMF_OpenHack_Nice",  
13      "offlineAt": 0,  
14      "onlineAt": 0,  
15      "publishTenantType": [  
16        "om_team",  
17        "op_tenant"  
18      ],  
19      "refCount": 6,  
20      "serviceDefId": "8c34e27ed6644bbfbce93a41a05cb7ab",  
21      "serviceType": "service",  
22      "status": "active",  
23      "systemDef": false,  
24      "tenantId": "db58f937c61141b3a92f28899cbb1555",  
25      "version": "v2"  
26    },  
27  ],  
28 }
```

API详解: 业务目录API

查询业务定义详细信息

GET /catalog/v1/servicedefs/{servicedefId}/details

Summary

Querying Details of specific NS Definition

Description

Query all the available NS definitions to the current tenant.

curl Sample:

```
curl -i -H "Content-Type:application/json" -X GET "https://accessip:port/rest/catalog/v1/servicedefs/{servicedefId}/details"
```

✓ 输入“servicedefid”

Parameters

Name	Located in	Description	Required	Schema
servicedefid	path	Service Definition ID	Yes	⇄ string

Responses

Code	Description	Schema
200	The GetServiceDefDetailRsp object is returned.	⇄ ▶ GetServiceDefDetailRsp { }
400	Parameter error.	
404	NS definition is not found.	
500	Internal error	

API详解: 业务目录API

查询业务定义详细信息示例

➤ 请求示例:

```
GET
/rest/catalog/v1/servicedefs/8c34e27ed6644bbfbce93a41a05cb7ab/details
HTTP/1.1
Host: 218.4.33.207:17100
X-Auth-Token:
  MIIETAYJKoZIhvcNAQcCoIIPTCCBDkCAQExDTALBglghkgBZQMEAgEwggKa
  BgkqhkiG9w0BBwGgggKLBIICh3siZXhwaXJlc19hdCI6IjIwMTctMDQtMjUu
  MjE6NTE6
Authorization: Bearer 6a8cbc0e-e93c-4684-9a39-40d085bd657eCache-
Control: no-cache
Postman-Token: b5aea431-a2a5-d667-b6ca-7a3f1d4b1b88
```

✓ **servicedefid**

✓ 返回 **“template_id”** 和 **“servicedefid”**

➤ 响应消息体:

```
1 {
2   "categories": [],
3   "createdAt": 1493948644546,
4   "creator": "om_team",
5   "description": "IES_TMF_OpenHack_Nice",
6   "domain": "stack",
7   "format": "JSON",
8   "formatVersion": "2017-05-5",
9   "name": "IES_TMF_OpenHack_Nice",
10  "offlineAt": 0,
11  "onlineAt": 0,
12  "pkgFileName": "IES_TMF_OpenHack_Nice_V2_20170505.zip",
13  "publishTenantType": [
14    "om_team",
15    "op_tenant"
16  ],
17  "refCount": 6,
18  "serviceDefId": "8c34e27ed6644bbfbce93a41a05cb7ab",
19  "serviceType": "service",
20  "status": "active",
21  "systemDef": false,
22  "templates": [
23    {
24      "id": "e77fc5e21e1e42c9933ec9574c33a5d8",
25      "name": "IES_TMF_OpenHack_Nice.json",
26      "type": "VTL",
27      "url": "/rest/catalog/v1/servicedefs/8c34e27ed6644bbfbce93a41a05cb7ab/temp
28    }
29  ],
```


创建业务

POST /servicemanager/v1/services

ServiceManager

Summary

Creating Service Instance

Description

Create and active a new Service Instance curl Sample:

```
curl -i -H "Content-Type:application/json" -X POST -d "{json}" "https://accessip:port/nest/servicemanager/v1/services"
```

- ✓ service_definition_id = servicedefid
- ✓ Template_id
- ✓ Parameters

Parameters

Name	Located in	Description	Required	Schema
createServiceRequestBody	body	service definition ID	Yes	<pre>createServiceRequest { service_definition_id: string template_id: string name: string onfailure: string description: string parameters: undefined nsd_script: undefined }</pre>

Responses

Code	Description	Schema
202	When information is returned normally, Location indicates the URI of the creation task. Users can query the URI to obtain the task creation progress.	<pre>createServiceRsp { createServiceResponse: createServiceResponse { service_id: string operation_id: string } }</pre>

请求示例

```
POST /rest/servicemanager/v1/services HTTP/1.1
Host: 218.4.33.207:17100
X-Auth-Token:
Content-Type: application/json
Authorization: Bearer 6a8cbc0e-e93c-4684-9a39-40d085bd657e
Cache-Control: no-cache
Postman-Token: 616e170f-dc54-51db-493d-f9f3d2f5631d
{
  "onfailure":"rollback",
  "service":{
    "name":"site2dc4_201705071158",
    "description":"",
    "service_definition_id":"8c34e27ed6644bbfbce93a41a05cb7ab",
    "template_id":"e77fc5e21e1e42c9933ec9574c33a5d8",
    "parameters":{
      "Site2DCList":[ {
        "VPC_ID":"db79cd8b-91e2-43f8-9791-54b8b2181a70",
        "CloudVpnName":"0S2DC4201705071158",
        "VNI":"2236",
        "CPE_A_Site":"siteDC201705071132",
        "CPE_A_Type":"AR169FGW-L",
        "CPE_A_ESN":"21500102003GG3000704",
        "CPE_A_Position":"siteDC201705071132",
        "CPE_A_POP":"Manager_VPC",
        "Bandwidth":"60000",
        "cidr":"163.113.12.1",
        "cidrBlockSize":"24",
        "action":"create"
      }
    ]
  }
}
```

响应消息体:

```
{
  "service":
  {
    "service_id": "4YFCYXi6TPu8gG1CQ7VocA",
    "operation_id": "31af59f1dc72437cb1c8f7"
  }
}
```

✓ 返回所创建服务的“**service_id**”。

- ✓ “parameters”中的变量值可以从<IES Environment and Data.xlsx>文件中查找到。
- ✓ “CloudVpnName”和“Bandwidth”必填。

查询服务列表

GET /servicemanager/v1/services

Summary

Query Service List

Description

Query the service instance list

curl Sample:

```
curl -i -H "Content-Type:application/json" -X GET -d "{json}" "https://accessip:port/rest/servicemanager/v1/services"
```

✓ 返回当前租户的所有服务实例。

Responses

Code Description

200 The list of all service instances is returned.

Schema

```
▼getServiceListRsp {
  services: ▼[
    Indicates the returned List of services
    ▼serviceRsp {
      name: ▶ string
      description: ▶ string
      creator: ▶ string
      service_id: ▶ string
      service_definition_id: ▶ string
      template_id: ▶ string
      active_status: ▶ string
      status: ▶ string
      created_at: ▶ integer
    }
  ]
}
```

API详解: 业务管理API

查询业务列表示例

➤ 请求示例：

GET /rest/servicemanager/v1/services HTTP/1.1

Host: 218.4.33.207:17100

X-Auth-Token:

```
MIIEYAJKozIhvcNAQcColIEPTCCBDkCAQExDTALBglghkgBZQMEAgE  
wggKaBgkqhkiG9w0BBwGgggKLBICh3siZXhwaXJlc19hdCI6IjIwMTct  
MDQtMjVUMjE6NTE6
```

Authorization: Bearer 6a8cbc0e-e93c-4684-9a39-40d085bd657e

Cache-Control: no-cache

Postman-Token: 5d26c3a6-0e9b-f213-f0dc-66eae9d7bbf7

✓ 返回“**service_id**”。

For the developing scenarios of scaling bandwidth, you can call the API to directly get available service instance;

For the E2E service provisioning scenarios, you can get it by calling “Creating Service Instance”

➤ 响应消息体：

```
Body Cookies Headers (7) Tests
Pretty Raw Preview JSON ↕
1 {
2   "services": [
3     {
4       "active_status": "Deactive",
5       "created_at": 1494052819361,
6       "creator": "nbitest_11",
7       "description": "",
8       "name": "s2s_201705061433",
9       "nfv_tag": null,
10      "service_definition_id": "8c34e27ed6644bbfbce93a41a05cb7ab",
11      "service_id": "8hiqoNgCSZmr1D1MyROJbg",
12      "status": "Completed",
13      "template_id": "e77fc5e21e1e42c9933ec9574c33a5d8",
14      "tenant_id": null,
15      "tenant_name": null
16    }
17  ]
18 }
```

API详解: 业务管理API

查询指定业务的详细信息



GET /servicemanager/v1/services/{serviceId}

Summary

Querying Details of specified Service

Description

Query the information of the specified service.

curl Sample:

```
curl -i -H "Content-Type:application/json" -X GET -d "{json}" "https://accessip:port/rest/servicemanager/v1/services/4Ucfi4T7TMeAj5RjpKJ46Q"
```

✓ service_id

Parameters

Name	Located in	Description	Required	Schema
serviceId	path	Service Instance ID	Yes	string

Responses

Code	Description	Schema
200	When information is returned normally, it returns the specified business instance information	<pre>↑ getServicesRsp { service: ↑service { name: string description: string creator: string service_id: string service_definition_id: string template_id: string active_status: string status: string created_at: integer parameters: parameters { } } }</pre>

API详解: 业务管理API

查询指定业务详细信息示例

➤ 请求示例:

```
GET /rest/servicemanager/v1/services/8hiqoNgCSZmrlD1MyROJbg
HTTP/1.1
Host: 218.4.33.207:17100
X-Auth-Token:
    MIIETAYJKoZIhvcNAQcCoIIPTCCBDkCAQExDTALBgIghkgBZQMEAgEwgg
    KaBgkqhkiG9w0BBwGgggKLBIICh3siZXhwaXJlc19hdCI6IjIwMTctMDQtM
    jVUMjE6NTE6
Authorization: Bearer 6a8cbc0e-e93c-4684-9a39-40d085bd657e
Cache-Control: no-cache
Postman-Token: 40308738-6117-3f72-a029-fb84e5b2b6e7
```

✓ **service_id**

✓ 返回“**service_name**”、“**Bandwidth**”和“**CloudVpnName**”

如果要修改带宽或者已经修改完，也可以通过这个API进行检查。

➤ 响应消息体:

```
1 {
2   "service": {
3     "active_status": "Deactive",
4     "created_at": 1494052819361,
5     "creator": "nbitest_11",
6     "description": "",
7     "name": "s2s_201705061433",
8     "nfv_tag": null,
9     "parameters": {
10      "Site2SiteList": [
11        {
12          "Bandwidth": "30000",
13          "CPE_A_ESN": "21500102003GG3000630",
14          "CPE_A_Position": "siteA201705061433",
15          "CPE_A_Site": "siteA201705061433",
16          "CPE_A_Type": "AR169FGW-L",
17          "CPE_Z_ESN": "21500102003GG3000674",
18          "CPE_Z_Position": "siteZ201705061433",
19          "CPE_Z_Site": "siteZ201705061433",
20          "CPE_Z_Type": "AR169FGW-L",
21          "CloudVpnName": "VPNS2S201705061433",
22          "VNI": "1236"
23        }
24      ]
25    },
26    "service_definition_id": "8c34e27ed6644bbfbce93a41a05cb7ab",
27    "service_id": "8hiqoNgCSZmrlD1MyROJbg",
28    "status": "Completed",
29    "template_id": "e77fc5e21e1e42c9933ec9574c33a5d8",
30    "tenant_id": null,
```

API详解: 业务管理API

修改业务

PUT /servicemanager/v1/services/{serviceId}

ServiceManager

Summary

Modify Service Instance

Description

Modify a created service instance attributions curl Sample:

使用这个API可以修改CloudVPN带宽。

```
curl -i -H "Content-Type:application/json" -X PUT -d "{json}" "https://accessip:port/rest/servicemanager/v1/services/4Ucfi4T7TMeAj5RjpKJ4GQ"
```

Parameters

Name	Located in	Description	Required	Schema
serviceId	path	service id	Yes	Object type: "string"
updateServiceRequestBody	body	Indicates the returned information of modified service	Yes	Object updateServiceRequest { onfailure: string name: string description: string parameters: undefined nsd_script: undefined }

Responses

Code	Description	Schema
202	When information is returned normally, Location indicates the URI of the query task. Users can query the URI to obtain the task execution progress	Object updateServiceRsp { }

API详解: 业务管理API

修改业务示例

➤ 请求示例:

```
1 PUT /rest/servicemanager/v1/services/8h1qoNgCSZmr1D1MyROJbg HTTP/1.1
2 Host: 218.4.33.207:17100
3 X-Auth-Token: MIIETAYJKoZIhvcNAQcCoIIIEPTCCBDKCAQExDTALBg1ghkgBZQMEAgEwggKaBgkqhkiG9w0BBwGgggKL
  BIICh3siZXhwaXJlc19hdCI6IjIwMTctMDQtMjVUMjE6NTE6
4 Content-Type: application/json
5 Authorization: Bearer 6a8cbc0e-e93c-4684-9a39-40d085bd657e
6 Cache-Control: no-cache
7 Postman-Token: 68981b41-d648-f805-71ec-88010bb2526f
8
9 {
10   "onfailure": "rollback",
11   "service": {
12     "name": "s2s_201705061433",
13     "description": "",
14     "service_definition_id": "8c34e27ed6644bbfbce93a41a05cb7ab",
15     "template_id": "e77fc5e21e1e42c9933ec9574c33a5d8",
16     "parameters": {
17       "Site2SiteList": [
18         {
19           "Bandwidth": "30000",
20           "CloudVpnName": "VPNS2S201705061433",
21           "action": "update"
22         }
23       ]
24     }
25   }
26 }
```

➤ 响应消息体:

```
1 {
2   "operation_id": "LSmM5cIwTM-qbtG0YrhD4Q"
3 }
```

✓ 输入具体的“**Bandwidth**”值，
执行修改**CloudVPN**带宽。

删除业务

DELETE /servicemanager/v1/services/{serviceId}

ServiceManager

Summary

Delete Service Instance

Description

Delete a created service instance to free up network resource.

curl Sample:

```
curl -i -H "Content-Type:application/json" -X DELETE -d "{json}" "https://accessip:port/rest/servicemanager/v1/services/4Ucfi4T7TMeAj5RjpKJ4GQ"
```

Parameters

Name	Located in	Description	Required	Schema
serviceId	path	Service instance ID	Yes	⇔ string

Responses

Code	Description	Schema
202	When information is returned normally, Location indicates the URI of the query task. Users can query the URI to obtain the task execution progress.	<pre>deleteServiceRsp { deleteServiceResponse: deleteServiceResponse { operation_id: string } }</pre>

删除业务示例

➤ 请求示例:

```
DELETE /rest/servicemanager/v1/services/8hiqoNgCSZmrlD1MyROJbg
HTTP/1.1
Host: 218.4.33.207:17100
X-Auth-Token:
  MIIETAYJKoZIhvcNAQcCoIIPTCCBDkCAQExDTALBglghkgBZQMEAgEwggKaBg
  kqhkiG9w0BBwGgggKLBIICh3siZXhwaXJlc19hdCI6IjIwMTctMDQtMjVUMjE6
  NTE6
Content-Type: application/json
Authorization: Bearer 6a8cbc0e-e93c-4684-9a39-40d085bd657e
Cache-Control: no-cache
Postman-Token: b6040b4a-6ca9-58c2-837d-6f5e7028aa89
```

➤ 响应消息体:

```
{
  "operation_id": "W0x8h0IBQq6GJKmys5i74Q"
}
```

✓ **service_id**

API详解: CloudVPN监控API

查询指定专线的流速或带宽利用率

GET /cloudvpnwatch/v1/traffic/connections/{connection-name}/{metric}

CloudVPNWatch

Summary

Querying CloudVPN traffic

Description

Query the traffic rate or bandwidth utilization of a specified private line.

Parameters

Name	Located in	Description	Required	Schema
connection-name	path	Indicates the name of a VPN	Yes	⇨ string
metric	path	Indicates the traffic rate or bandwidth utilization	Yes	⇨ string
direction	query	Indicates the query direction:inbound outbound	Yes	⇨ string
timedim	query	time dimension	Yes	⇨ string
starttime	query	Indicates the start time (UTC, in second)	Yes	⇨ ▼ integer (int64)
endtime	query	Indicates the end time (UTC, in second)	Yes	⇨ ▼ integer (int64)

✓ CloudVpnName

Responses

Code	Description	Schema
200	Data obtained successfully	<pre>⇨ MetricResponse { Return metrix of traffic rate or bandwidth utilization metric: ResMetricData { } }</pre>

API详解: CloudVPN监控API

查询指定专线的流速或带宽利用率示例

➤ 请求示例:

```
GET
/rest/cloudvpnwatch/v1/traffic/connections/VPNS2S20170506143
3/traffic-
rate?starttime=1493367320&endtime=1495058150&tim
edim=minute&direction=outbound&indicator=max
HTTP/1.1
Host: 218.4.33.207:17100
X-Auth-Token:
MIIETAYJKoZIhvcNAQcColIEPTCCBDkCAQExDTALBglghkgBZQMEAgE
wggKaBgkqhkiG9w0BBwGgggKLBIICh3siZXhwaXJlc19hdCI6IjIwMTct
MDQtMjVUMjE6NTE6
Authorization: Bearer 6a8cbc0e-e93c-4684-9a39-40d085bd657e
Cache-Control: no-cache
Postman-Token: eca5e1d6-1840-e7e4-bc99-0f35e4d99ee2
```

✓ **CloudVpnName**

➤ 响应消息体:

```
Body Cookies Headers (7) Tests Status: 200 OK
Pretty Raw Preview JSON ↕
1 {
2   "metric": {
3     "datas": [
4       {
5         "time": 1494061140,
6         "value": "22.8266666666666677605601609712948629749007523059844970703125000000"
7       },
8       {
9         "time": 1494060540,
10        "value": "2791180.146666666680042486485026353992822123473160900175571441650390625"
11      },
12      {
13        "time": 1494059940,
14        "value": "90.38666666666666709981526467432288995951239485293626785278320312500"
15      },
16      {
17        "time": 1494060600,
18        "value": "35.4266666666666683643740348719219923623313661664724349975585937500"
19      },
20      {
21        "time": 1494060000,
22        "value": "104.22666666666666716613894733134415560016350354999303817749023437500"
23      },
24      {
25        "time": 1494060660,
26        "value": "1158060.85333333338882961984633856999948875454720109701156616210937500"
27      },
28    ]
29   }
30 }
```

如何试用华为CloudOpera IES的API呢?

推荐使用POSTMAN试用CloudOpera IES所提供的API



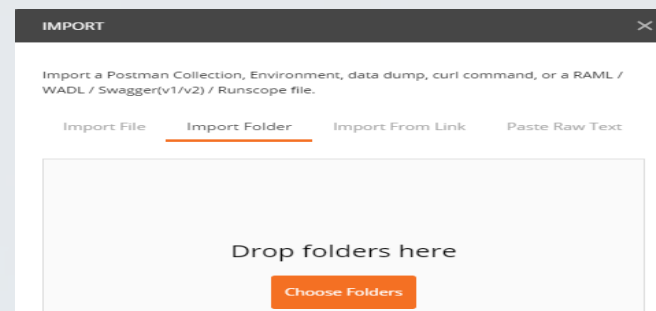
步骤1: 安装Postman并解压样例集文件

- 解压<Huawei CloudOpera IES OpenAPIs Collection.rar> 到本地目录“Huawei CloudOpera IES OpenAPIs Collection”，其中含有4个json文件

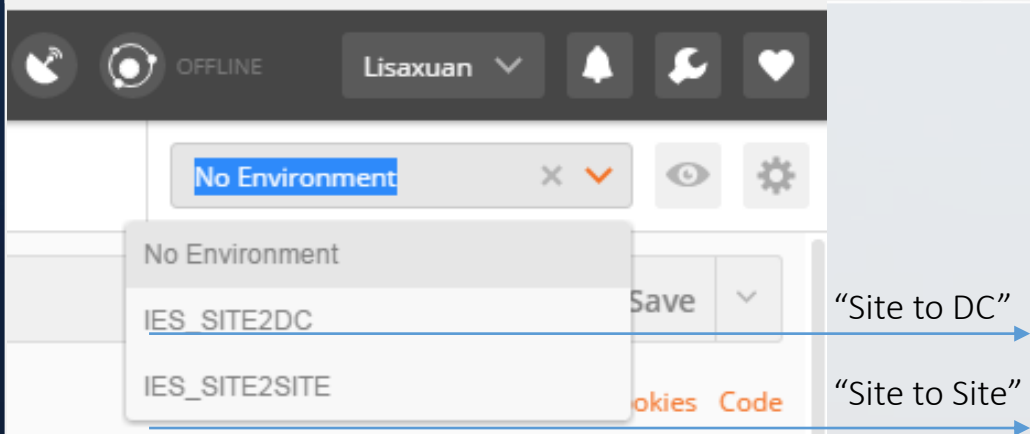


步骤2: 打开Postman并导入样例集

- Choose the collection folder of “Huawei CloudOpera IES OpenAPIs Collection” to import all.

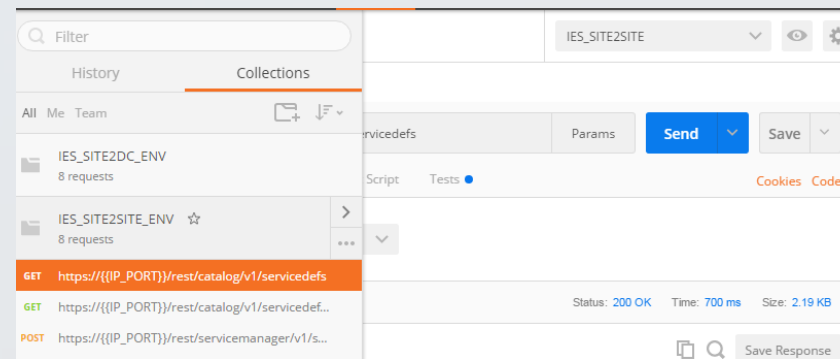


步骤3: 选择并编辑对应环境变量的值



步骤4: 在左树中选择API执行测试

- Select an API and then click “Send” to test



预置数据介绍



User	IES Tenant name	IES Tenant Token	CloudVPN	ServiceID	ServiceName	CloudVpnName	Recommended scenarios
User 1	nbitest_11	MIIETAYJKoZlhvcNAQcCoIIIEPTCCBDkCAQExDTA LBglghkgBZQMEAgEwggKaBgkqhkiG9w0BBwGgggKLBIICh3siZXhwaXJlc19hdCI6IjIwMTtMDQ0tMjVUMjE6NTE6	Site2Site	8hiqoNgCSZmrlD 1MyROJbg	s2s_201705061433	VPNS2S20170506 61433	Support "Create & activate CloudVPN service" and "Elastically scale CloudVPN network " scenarios
User 2~User 4	nbitest_12	MjguMTM1IiwiaXNzdWVhbnVzZm9udWxsLCJ1c2Vyljpw7ImlkIjoiMz4NzUuLCJ1YmF1IjoiznVqaWFu	Site2DC	9LbuAd11Qe- cuGnVONz6qW	site2dc_201705071 132	OS2DC201705071 1132	Support "Elastically scale CloudVPN network " scenarios
User 5~User 7	nbitest_13	ZmVuZy9LCJwcm9qZWN0Ijpw7ImlkIjoiZ2xvYmF1IiwibmFtZSI6IjRlZmF1bH0uLCJ1YmF1bWVzZm9udWxsLCJ1YmF1IjoiznVqaWFu	Site2DC	FLAUUc8NT0qN- mNTM_lcfw	site2dc3_20170508 1840	OS2DC320170508 81840	Support "Elastically scale CloudVPN network " scenarios
User 8~User 11	nbitest_14	IjoiRGVmYXVsdCEB21haW4ifSwiZW1haWwiO m51bGwsInRlbgVwaG9uZSI6bnVsbCwiY2F0YXWx xvZyI6bnVsbCwicm9sZXMiOlt7ImlkIjoiNTg1NiIsI m5hbWUiOiJn	Site2DC	L8YNdmm4Rg- SJcMnlucUQA	site2dc4_20170507 1158	OS2DC420170509 92039	Support "Elastically scale CloudVPN network " scenarios
User12~User 15	nbitest_15	YXRld2F5LmFwaXMucGF0Y2hpcGVyYXRpb24ifSx x7ImlkIjoiNTg4MyIsIm5hbWUiOiJnYXRld2F5LmF FwaXMucGF0Y2hpcGVyYXRpb24ifSx	Site2DC	FbqROiHgSyGhZps pzJPXH_BA	site2dc5_20170507 1256	OS2DC520170507 71256	Support "Elastically scale CloudVPN network " scenarios
User 16	nbitest_16	ZSI6ImdhG3YXkuYXBpcy5kZWxldGVpcGVyYXR Rpb24ifSx7ImlkIjoiNTg4NSIsIm5hbWUiOiJnYXRld d2F5LmFwaXMucGF0Y2V0T3BlcmF0aW9uLn0seyJpZC Cl6lU4ODYi	Site2DC	BkLfgSbKQXybr0 kkj8MQTQ	site2dc6_20170507 1300	OS2DC620170507 71300	Support "Create & activate CloudVPN service" and "Elastically scale CloudVPN network " scenarios

附加材料

<https://devcenter.huawei.com/uniportal/register.html?service=http://developer.huawei.com/cn/ict/http://developer.huawei.com/cn/ict/Products/IES>



CloudOpera
者大赛Demo开发



THANKS

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