Enterprise Self-Service Management 25.3.0

API Reference

Issue 06

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Contents

1 Before You Start

Welcome to Enterprise Self-Service Management API Reference (ESM). ESM allows you to manage operations of your Huawei dedicated cloud sites on your own, and offers a broad set of dashboards you can use to gain comprehensive, multi-dimensional data insights into the status and health of those sites.

This document describes how to use REST APIs to perform operations on ESM, such as creating, deleting, and modifying tenants. For all supported operations, see **API Overview**.

If you plan to access ESM through an API, ensure that you are familiar with ESM concepts. For details, see **Service Overview**.

Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the endpoints of services, **Regions and Endpoints**.

The following table lists example ESM endpoints. Select a desired one based on service requirements.

Region Name	Region	Endpoint	Protocol
Region - City	region-az	esm-region-az.my******cloud.com	HTTPS

Basic Concepts

- Account

  A domain is created upon successful registration. The domain has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant users permissions. The account is a payment entity and should not be used directly to perform routine management. For security purposes, create users and grant them permissions for routine management.

- IAM User

  A user is created using a domain to use cloud services. Each user has its own identity credentials (password and access keys).

- Region

  Regions are divided from the dimensions of geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified as either universal regions or dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides specific services for specific tenants.

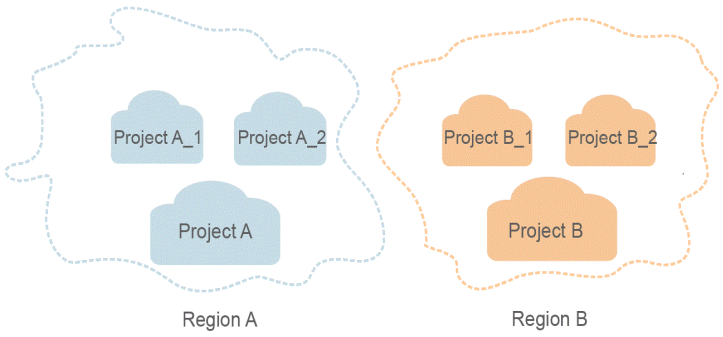
- AZ

  An AZ comprises one or more physical data centers equipped with independent ventilation, fire-suppression, moisture-control, and electricity facilities. Compute, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.

- Project

  Projects group and isolate compute, storage, and network resources across physical regions. A default project is provided for each region, and subprojects can be created under each default project. Users can be granted permissions to access all resources in a specific project. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

  Figure 1-1 Project isolating model

- Enterprise Project

  Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated. An enterprise project can include resources in multiple regions, and resources can be added to or removed from enterprise projects.

2 API Overview

Table 2-1 lists the ESM APIs that meet RESTful API design standards.

Table 2-1 ESM API description

Type	Description
Data visualization	Allows you to query applications, services, and tenant resources.
Data platforms and visualization	Allows you to query, create, and delete APIs.
SDRs	Allows you to query and create SDR APIs.

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the ESM API for creating a query task as an example to describe how to call an API.

Request URI

A request URI is in the following format:

{URI-scheme}://{Endpoint}/{resource-path}?{query-string}

Although a request URI is included in the request header, most programming languages or frameworks require passing the request URI separately.

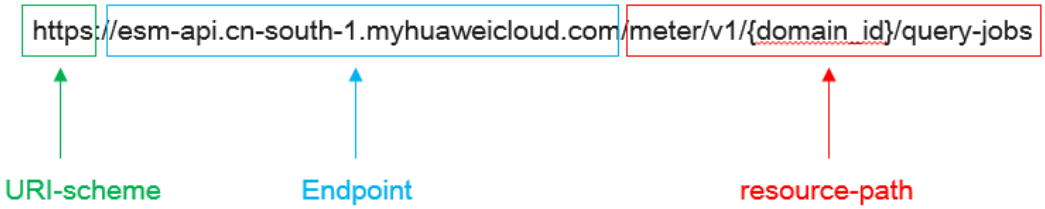
Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use **HTTPS**.
Endpoint	Domain name or IP address of the server where the REST service is deployed. The value varies depending on services and regions. Obtain the value from **Regions and Endpoints**. For example, the endpoint of ESM in the **CN South-Guangzhou** region is **esm-api.cn-south-1.myhuaweicloud.com**.
resource-path	Access path of an API. Obtain the path from the URI of an API. For example, the **resource-path** of the API for **creating a query task** is **/meter/v1/{domain_id}/query-jobs**.
query-string	(Optional) Query parameter. It is not necessary to configure query parameters for all APIs. Ensure that there is a question mark (?) before each query parameter, in the format of "*Parameter name*=*Parameter value*". For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

For example, to obtain an ESM token in the **CN South-Guangzhou** region, obtain the ESM endpoint (**esm-api.cn-south-1.myhuaweicloud.com**) for this region and the **resource-path** (**/meter/v1/{domain_id}/query-jobs**) in the URI of the API used to create a query task. Then, construct the URI as follows:

```
https://esm-api.cn-south-1.myhuaweicloud.com/meter/v1/{domain_id}/query-jobs
```

Figure 3-1 Example URI



NOTE

To simplify the URI display, this document provides only the **resource-path** and request method in the URI of each API. The **URI-scheme** of all APIs is HTTPS, and the endpoints of all APIs in the same region are identical.

Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server.

Table 3-2 HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.
DELETE	Request the server to delete specified resources, for example, an object.

For example, in the URI of the API used to **create a query task**, the request method is **POST**. The request is as follows:

```
POST https://esm-api.cn-south-1.myhuaweicloud.com/meter/v1/{domain_id}/query-jobs
```

Request Headers

You can add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Table 3-3 lists common request header fields.

Table 3-3 Common request header fields

Name	Description	Mandatory	Example
Content-Type	Type (or format) of the request body being sent from a client to a server. The default value **application/json** is recommended. Other values will be described in specific APIs.	Yes	application/json
Accept	Method of receiving the response body. Currently, the value can only be **application/json**.	No	application/json
X-Auth-Token	User token. It is a response to the API for obtaining a user token. This API is the only one that does not require authentication. After a response is returned, the value of **X-Subject-Token** in the response header is the token value.	Yes This field is mandatory for authentication using tokens.	The following is part of an example token: MIIPAgYJKoZIhvc-NAQcCo...ggg1BBIINPXsidG9rZ

(Optional) Request Body

This part is optional. A request body is generally sent in a structured format (for example, JSON or XML), which is specified by **Content-Type** in the request header. It is used to transfer content other than the request header. If the request body contains full-width characters, these characters must be coded in UTF-8.

Request bodies vary depending on APIs. Some APIs do not require a request body, such as the APIs that need to be requested using GET and DELETE methods.

NOTE

For the API used to **create a query task**, you can obtain the required request parameters and parameter description from the API request. The following is a request carrying a request body, where values of fields are examples:

```
POST https://esm-api.cn-south-1.myhuaweicloud.com/meter/v1/{domain_id}/query-jobs
Content-Type: application/json

{
  "hcso_id": "********",
  "region_id": "********",
  "min_sdr_time": "2022-01-01 00:00:00",
  "max_sdr_time": "2022-02-01 00:00:00"
}
```

If all data required for the API request is available, you can send a request to call an API through curl, Postman, or coding. In the response to the API used to obtain a user token, **x-subject-token** is the target user token. This token can then be used to authenticate other API calls.

3.2 Authentication

Token authentication is required to call an ESM API.

Token-based Authentication

NOTE

A token is valid for 24 hours. If a token is used, the system caches the token to avoid frequent calling.

A token specifies temporary permissions in a computer system.

During token-based authentication, the token is added to requests to get permissions for calling an API. The token can be obtained by calling the API used to **obtain a user token**.

A cloud service can be deployed as either a project-level service or global service, where,

- For a project-level service, obtain a project-level token. When you call the API, set **auth.scope** in the request body to **project**.
- For a global service, obtain a global token. When you call the API, set **auth.scope** in the request body to **domain**.

ESM is a project-level service. When you call the API for obtaining a user token, set **auth.scope** in the request body to **project**.

```
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "********",
                    "domain": {
                        "name": "domainname"
```



```
                }
            }
        }
    },
    "scope": {
        "project": {
            "name": "xxxxxxxx"
        }
    }
  }
}
```

After a token is obtained, add **X-Auth-Token** (with value of **Token**) to the request header when you call other APIs. For example, if the token is **ABCDEFJ....**, add **X-Auth-Token: ABCDEFJ....** to a request as follows:

```
POST https://esm-api.cn-south-1.myhuaweicloud.com/meter/v1/{domain_id}/query-jobs
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

3.3 Response

Status Codes

After sending a request, you will receive a response, including a status code, response header, and response body.

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see **Status Codes**.

If **201** is returned for calling the API used to create a query task, the request is successful.

Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

(Optional) Response Body

This part is optional. The body of a response is often returned in a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following is part of the response body for the API used to create a query task:

```
{
  "job_id": "********"
}
```

If an error occurs during API calling, error code and error message will be displayed. The following shows an error response body.

```
{
    "error_msg": "The format of message is error",
    "error_code": "AS.0001"
}
```

In the error response, **error_code** indicates an error code, and **error_msg** describes the error.

4 API

4.1 Data Visualization

4.1.1 Querying the Service Health Status

Function

Query the service health status.

Precautions

None

Calling Method

POST

URI

/rest/dlvapp-engine/v1/screens/data/{share_id}

Path parameters

Table 4-1 Path parameters

Parameter	Mandatory	Type	Value Range	Description
share_id	Yes	string	0~0 The value can contain 0 characters.	Project ID

Query parameters

None

Request

- **Request header parameters**

  For details, see the header description in the sample request.
- **Request body parameters**

  None
- **Sample request**

```
POST /rest/dlvapp-engine/v1/screens/data/{share_id} HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
```

Status Codes

Status Code	Description
200	Operation successful.
302	Redirection response code.
400	Parameter error.
403	URL authentication failed.
404	The REST API was not found.

Status Code	Description
500	An internal application error occurred.

Operation Severity

Minor

4.1.2 Querying Capacities of Physical Resources

Query the following available resource capacities of compute and storage resource pools:

- Compute resource pools (physical compute clusters used to build resource pools): total capacities (vCPU cores/memory), allocated capacities (vCPU cores/memory), and remaining capacities (vCPUs/memory)
- Storage resource pools (physical storage clusters used to build resource pools): total capacities (resource capacities of storage server clusters of different models such as SSD and SAS, in TB), allocated capacities, and remaining capacities

Function

Query the resource capacity of physical devices.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/host-physical/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	string	None	ID of the accessed tenant.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
device_type	No	string	*ECS/EVS*	Device type. Value **ECS** indicates the compute type (physical compute resources). Value **EVS** indicates the storage type (physical storage resources).
zone_type	No	string	manage/pod	Zone type. Value **manage** indicates a management zone. Value **pod** indicates a tenant zone.
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds
end_time	Yes	int	None	End timestamp of the query, in milliseconds
page_size	Yes	int	0~1000	Page size

Parameter	Mandatory	Type	Value Range	Description
offset_value	Yes	int	None	Query start value

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/host-physical/capacity HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Return code
msg	Yes	String	None	Returned message
total	Yes	Integer	None	Data records
device_type	No	String	None	Physical device type. Value **ECS** indicates the compute type (physical compute servers). Value **EVS** indicates the storage type (physical storage servers).
timestamp	Yes	Long	None	Timestamp
region	Yes	String	None	Name of the region to which resources belong
zone_type	No	String	None	Type of the region to which the resource belongs. The value can be **MANAGE**, **POD**, or **KVM_POD**.
allocated	Yes	String	None	Allocated capacity. The vCPU unit is core, the memory unit is TB, and the storage unit is TB.

Parameter	Mandatory	Type	Value Range	Description
avaliable	Yes	String	None	Remaining capacity. The vCPU unit is core, the memory unit is TB, and the storage unit is TB.
resource_type	No	String	None	Specifications and model of a physical server, for example, C6XLarge physical compute server or SSD physical storage servers
metric_type	No	String	None	Capacity metric type. The value varies depending on the value of **device_type**, the physical resource type (compute or storage).

- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
Storage
{
   "total": 2,
   "list": [
           {
            "available": "94.5693359375",
            "metric_type": "SAS",
            "device_type": "EVS",
            "zone_type": "MANAGE",
            "region": "cn-central-229",
            "allocated": "112.2265625",
            "resource_type": "SAS",
            "timestamp": "1649692800000"
            },
           {
            "available": "102.4052734375",
            "metric_type": "SAS",
            "device_type": "EVS",
            "zone_type": "MANAGE",
            "region": "cn-east-264",
            "allocated": "173.3232421875",
            "resource_type": "SAS",
            "timestamp": "1649692800000"
            }
            ]
}
Compute
{
   "service_type": "ECS",
   "total": "44.072265625",
   "available": "26.486328125",
   "metric_type": "memory",
   "zone_type": "KVM_POD",
   "used": "0",
```



```
    "free": "44.072265625",
    "used_ratio": "0",
    "region": "cn-east-264",
    "resource_count": "0",
    "allocated": "15.2578125",
    "resource_type": "C6xLarge",
    "timestamp": "1649865600000"
},
{
    "service_type": "ECS",
    "total": "10792",
    "available": "5408",
    "metric_type": "vCpu",
    "zone_type": "KVM_POD",
    "used": "0",
    "free": "10792",
    "used_ratio": "0",
    "region": "cn-east-264",
    "resource_count": "0",
    "allocated": "4964",
    "resource_type": "M6xLarge",
    "timestamp": "1649865600000"
}
```


Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

Operation Severity

Minor

4.1.3 Querying Capacities of Cloud Service Resources

In this version, capacities of the following Huawei Cloud cloud services can be queried: ECS, BMS, EVS, OBS, EIP, RDS, DCC, DeH, SFS, and VPN.

4.1.3.1 Querying the ECS-VM Capacity

Function

Query the allocated and available quantities of provisioned ECS-VMs with different specifications in the management and tenant zones.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG

Parameter	Mandatory	Type	Value Range	Description
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	string	None	ID of the accessed tenant.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds
end_time	Yes	int	None	End timestamp of the query, in milliseconds
service_type	No	string	ECS_VM	Service type
zone_type	No	string	manage/pod	Zone type. Value **manage** indicates a management zone. Value **pod** indicates a tenant zone.
page_size	Yes	int	0~1000	Page size
offset_value	Yes	int	None	Query start value

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=ECS_VM
HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
```



```
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Return code
msg	Yes	String	None	Returned message
total	Yes	Integer	None	Data records
service_type	No	String	None	Cloud service name, which identifies the cloud service to which resources belong. ecs-vm is the VM provisioned by ECS.
timestamp	Yes	Long	None	Timestamp
region	Yes	String	None	Name of the region to which resources belong
zone_type	No	String	None	Type of the region to which the resource belongs. The value can be **MANAGE**, **POD**, or **KVM_POD**.
allocated	Yes	String	None	How many VMs have been allocated
avaliable	Yes	String	None	How many VMs still remain
metric_type	No	String	None	VM specifications and models: for example, C6-2

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total":33,
   "list":[
         {
         "service_type":"ecs-vm",
         "metric_type":"xxx/C6 flavor",
         "total":"null",
         "used":"null",
```



```
            "free":"null",
"allocated":"Allocated capacity",
"available":"Available capacity",
            "used_ratio":"null",
"allocated_ratio": "Allocation rate",
            "resource_count":"null",
"zone_type": "management zone (manage); tenant zone (pod)",
"timestamp": "Timestamp",
            "region":"cn-north-1"
            }
          ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.2 Querying the BMS Capacity

Function

Query the allocated and remaining quantities of provisioned BMSs with different specifications.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	string	None	ID of the accessed tenant.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds

Parameter	Mandatory	Type	Value Range	Description
end_time	Yes	int	None	End timestamp of the query, in milliseconds
service_type	No	string	BMS	Service type
zone_type	No	string	BMS_POD	BMS pod
page_size	Yes	int	0~1000	Page size
offset_value	Yes	int	None	Query start value

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=BMS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Return code
msg	Yes	String	None	Returned message
total	Yes	Integer	None	Data records
service_type	No	String	None	Cloud service name, which identifies the cloud service to which resources belong. For this API, the value can be **BMS**.

Parameter	Mandatory	Type	Value Range	Description
timestamp	Yes	Long	None	Timestamp
region	Yes	String	None	Name of the region to which resources belong
zone_type	No	String	None	Type of the region to which the resource belongs. The value can be **MANAGE**, **POD**, or **KVM_POD**.
allocated	Yes	String	None	How many BMSs have been allocated
available	Yes	String	None	How many BMSs still remain
total (in the **list** section)	Yes	String	None	How many BMSs are available
metric_type	No	String	None	BMS specifications, for example, physical.kd1ne.2xlarge

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total": 1,
   "list": [
          {
          "service_type": "BMS",
          "total": "4",
          "available": "4",
          "metric_type": "physical.kd1ne.2xlarge",
          "zone_type": "POD",
          "used": "0",
          "free": "0",
          "used_ratio": "0",
          "region": "cn-east-264",
          "resource_count": "0",
          "allocated": "0",
          "timestamp": "1650211200000"
           }
          ]
}
```


Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.3 Querying the EVS Capacity

Function

Query the total, allocated, and remaining quantities of physical storage servers used by the EVS service.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	string	None	ID of the accessed tenant.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds
end_time	Yes	int	None	End timestamp of the query, in milliseconds
service_type	No	string	EVS	Service type
zone_type	No	string	manage/pod	Zone type. Value **manage** indicates a management zone. Value **pod** indicates a tenant zone.
page_size	Yes	int	0~1000	Page size
offset_value	Yes	int	None	Query start value

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=EVS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Return code
msg	Yes	String	None	Returned message
total	Yes	Integer	None	Data records
service_type	No	String	None	Cloud service name, which identifies the cloud service to which resources belong. For this API, the value can be **EVS**.
timestamp	Yes	Long	None	Timestamp
region	Yes	String	None	Name of the region to which resources belong
zone_type	No	String	None	Type of the region to which the resource belongs. The value can be **MANAGE** or **POD**.
allocated	Yes	String	None	What storage space in TB has been allocated
avaliable	Yes	String	None	What storage space in TB still remains
metric_type	No	String	None	EVS disk type, for example, SAS, SSD, high I/O, and common I/O

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
```



```
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total": 2,
   "list": [
           {
           "available": "94.5693359375",
           "metric_type": "SAS",
           "service_type": "EVS",
           "zone_type": "MANAGE",
           "region": "cn-central-229",
           "allocated": "112.2265625",
           "timestamp": "1649692800000"
           },
           {
           "available": "102.4052734375",
           "metric_type": "SAS",
           "service_type": "EVS",
           "zone_type": "MANAGE",
           "region": "cn-east-264",
           "allocated": "173.3232421875",
          "timestamp": "1649692800000"
           }
         ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.4 Querying the OBS Capacity

Function

Query the total, allocated, and available OBS capacities.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent

SLA Item	Definition
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	string	None	ID of the accessed tenant.

Parameter	Mandatory	Type	Value Range	Description
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds
end_time	Yes	int	None	End timestamp of the query, in milliseconds
service_type	No	string	OBS	Service type
zone_type	No	string	OBS_POD	OBS pod
page_size	Yes	int	0~1000	Page size
offset_value	Yes	int	None	Query start value

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=OBS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Return code
msg	Yes	String	None	Returned message
total	Yes	Integer	None	Data records
service_type	No	String	None	Cloud service name, which identifies the cloud service to which resources belong. For this API, the value can be **OBS**.
timestamp	Yes	Long	None	Timestamp
region	Yes	String	None	Name of the region to which resources belong
zone_type	No	String	None	OBS is globally deployed and is not associated with an AZ.
allocated	Yes	String	None	What storage space in TB has been allocated
avaliable	Yes	String	None	What storage space in TB still remains
metric_type	No	String	None	OBS resource type, which can be a single-AZ or multi-AZ architecture

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total": 1,
   "list": [
          {
          "service_type": "OBS",
          "total": "80",
          "available": "0",
          "metric_type": "a",
          "zone_type": "OBS_POD",
          "used": "20",
          "free": "0",
          "used_ratio": "0",
          "region": "cn-east-264",
          "resource_count": "0",
          "allocated": "0",
          "timestamp": "1649865600000"
```



```
        }
      ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.5 Querying the EIP Capacity

Function

Query the total, allocated, and remaining quantities of EIPs.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	string	None	ID of the accessed tenant.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds
end_time	Yes	int	None	End timestamp of the query, in milliseconds
service_type	No	string	EIP	Service type
zone_type	No	string	EIP_POD	EIP pod
page_size	Yes	int	0~1000	Page size

Parameter	Mandatory	Type	Value Range	Description
offset_value	Yes	int	None	Query start value

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=EIP HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Return code
msg	Yes	String	None	Returned message
total	Yes	Integer	None	Data records
service_type	No	String	None	Cloud service name, which identifies the cloud service to which resources belong. For this API, the value can be **EIP**.
timestamp	Yes	Long	None	Timestamp
region	Yes	String	None	Name of the region to which resources belong
zone_type	No	String	None	Indicates the type of the region to which the resource belongs. The value can be **EIP_POD**.

Parameter	Mandatory	Type	Value Range	Description
total (in the **list** section)	No	String	None	How many EIPs are available in total
allocated	Yes	String	None	How many EIPs have been allocated
avaliable	Yes	String	None	How many EIPs still remain

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total": 1,
   "list": [
           {
           "service_type": "EIP",
           "total": "490",
           "available": "132",
           "metric_type": "5_bgp",
           "zone_type": "EIP_POD",
           "used": "0",
           "free": "0",
           "used_ratio": "0",
           "region": "cn-east-264",
           "resource_count": "0",
           "allocated": "358",
           "timestamp": "1650211200000"
           }
         ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.6 Querying the RDS Capacity

Function

Query the allocated and remaining quantities of provisioned RDS instances with different specifications.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE

Parameter	Mandatory	Type	Value Range	Description
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds.
end_time	Yes	int	None	End timestamp of the query, in milliseconds.
service_type	No	String	RDS	Service type.
zone_type	No	String	RDS_POD	RDS pod.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=RDS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
```



```
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Response code.
msg	Yes	String	None	Response message.
total	Yes	Integer	None	Number of data records.
service_type	No	String	None	Type of the cloud service to which the resource belongs. This parameter is fixed to **RDS**.
timestamp	Yes	Long	None	Timestamp.
region	Yes	String	None	Name of the region to which resources belong.
zone_type	No	String	None	Region to which resources belong, which is fixed to **RDS_POD** (a tenant zone).
total (in the **list** section)	No	String	None	How many RDS instances are available in total.
allocated	Yes	String	None	How many RDS instances have been allocated.
avaliable	Yes	String	None	How many RDS instances still remain.
metric_type	No	String	None	RDS metric type, for example, SQL Server relational DB instances or NoSQL Server non-relational DB instances.

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total":33,
```



```
   "list":[
          {
          "service_type":"RDS",
          "metric_type":"dbtype:sqlServer/nosqlServer",
"total":"Total number",
"used":"Used capacity",
"free":"Remaining capacity",
"allocated":"Allocatable capacity",
"available":"Available capacity",
          "used_ratio":"null",
          "allocated_ratio":"null",
          "resource_count":"null",
          "zone_type":"RDS_POD",
"timestamp":"timestamp",
          "region":"cn-north-1"
          }
        ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.7 Querying the DCC Capacity

Function

Query the total, allocated, and remaining quantities of DCC compute resources such as CPUs and memory.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds.
end_time	Yes	int	None	End timestamp of the query, in milliseconds.
service_type	No	String	DCC	Service type.
zone_type	No	String	DCC_POD	DCC pod.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=DCC HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Response code.
msg	Yes	String	None	Response message.
total	Yes	Integer	None	Number of data records.

Parameter	Mandatory	Type	Value Range	Description
service_type	No	String	None	Type of the cloud service to which the resource belongs. This parameter is fixed to **DCC**.
timestamp	Yes	Long	None	Timestamp.
region	Yes	String	None	Name of the region to which resources belong.
zone_type	No	String	None	Region to which resources belong, which is fixed to **DCC_POD** (a tenant zone).
total (in the **list** section)	No	String	None	How many CPU cores or what memory size in TB are available in total in the DCC resource pool.
allocated	Yes	String	None	How many CPU cores or what memory size in TB have been allocated.
metric_type	No	String	None	Capacity metrics including CPU and memory for the DCC resource pool.
avaliable	Yes	String	None	How many CPU cores or what memory size in TB still remains.

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total":33,
   "list":[
          {
           "service_type":"dcc",
"metric_type":"host/memory/vCPU",
"total":"Total number of hosts, vCPU cores, or memory (TB)",
"used":"Used capacity",
"free":"Remaining capacity",
"allocated":"Allocated capacity",
"available":"Available capacity",
"used_ratio":"Usage",
"allocated_ratio":"Allocation rate",
           "resource_count":"null",
           "zone_type":"DCC_POD",
"timestamp":"timestamp",
           "region":"cn-north-1"
            }
         ]
}
```


Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.8 Querying the DeH Capacity

Function

Query the allocated and remaining quantities of provisioned DeHs with different specifications.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds.
end_time	Yes	int	None	End timestamp of the query, in milliseconds.
service_type	No	String	DeH	Service type.
zone_type	No	String	DeH_POD	DeH pod.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=DeH HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Response code.
msg	Yes	String	None	Response message.
total	Yes	Integer	None	Number of data records.
service_type	No	String	None	Type of the cloud service to which the resource belongs. This parameter is fixed to **deh**.
timestamp	Yes	Long	None	Timestamp.
region	Yes	String	None	Name of the region to which resources belong.
zone_type	No	String	None	Region to which resources belong, which is fixed to **DeH_POD** (a tenant zone).
total (in the **list** section)	No	String	None	How many dedicated hosts or servers are available in total.
allocated	Yes	String	None	How many dedicated hosts or servers have been allocated.
metric_type	No	String	None	DeH specifications type, for example, the S and X series.
avaliable	Yes	String	None	How many dedicated hosts or servers still remain.

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total":33,
   "list":[
          {
          "service_type":"deh",
"metric_type": "DeH flavor type: s3/l5",
"total":"Total number",
"used":"Used capacity",
"free":"Remaining capacity",
"allocated":"Allocatable capacity",
"available":"Available capacity",
"used_ratio":"Usage",
"allocated_ratio":"Allocation rate",
          "resource_count":"null",
          "zone_type":"DEH_POD",
"timestamp":"timestamp",
          "region":"cn-north-1"
           }
         ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.9 Querying the SFS Capacity

Function

Query the total, used, and remaining capacities of the SFS service.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent

SLA Item	Definition
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.

Parameter	Mandatory	Type	Value Range	Description
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds.
end_time	Yes	int	None	End timestamp of the query, in milliseconds.
service_type	No	String	SFS	Service type.
zone_type	No	String	SFS_POD	SFS pod.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=SFS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Response code.
msg	Yes	String	None	Response message.
total	Yes	Integer	None	Number of data records.
service_type	No	String	None	Type of the cloud service to which the resource belongs. This parameter is fixed to **SFS**.
timestamp	Yes	Long	None	Timestamp.
region	Yes	String	None	Name of the region to which resources belong.
zone_type	No	String	None	Region to which resources belong, which is fixed to **SFS_POD** (a tenant zone).
total (in the **list** section)	No	String	None	What SFS storage space in TB is available in total.
allocated	Yes	String	None	What storage space in TB has been allocated.
metric_type	No	String	None	SFS specifications type, which does not include backend specifications as virtual storage space is used.
avaliable	Yes	String	None	What storage space in TB still remains.

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total":33,
   "list":[
         {
         "service_type":"sfs",
         "metric_type":"null",
"total":"Total capacity, in TB",
"used":"Used capacity",
"free":"Remaining capacity",
"allocated":"Allocatable capacity",
```



```
"available":"Available capacity",
"used_ratio":"Usage",
"allocated_ratio":"Allocation rate",
            "resource_count":"null",
            "zone_type":"SFS_POD",
"timestamp":"timestamp",
            "region":"cn-north-1"
             }
           ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.3.10 Querying the VPN Capacity

Function

Query resource capacities of the VPN service, such as the quantities of VPN connections and VPN gateways.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudService/capacity

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Query parameters**

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	int	None	Start timestamp of the query, in milliseconds.

Parameter	Mandatory	Type	Value Range	Description
end_time	Yes	int	None	End timestamp of the query, in milliseconds.
service_type	No	String	VPN	Service type.
zone_type	No	String	VPN_POD	VPN pod.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudService/capacity?service_type=VPN HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
code	Yes	String	None	Response code.
msg	Yes	String	None	Response message.
total	Yes	Integer	None	Number of data records.
service_type	No	String	None	Type of the cloud service to which the resource belongs. This parameter is fixed to **VPN**.

Parameter	Mandatory	Type	Value Range	Description
timestamp	Yes	Long	None	Timestamp.
region	Yes	String	None	Name of the region to which resources belong.
zone_type	No	String	None	Region to which resources belong, which is fixed to **VPN_POD** (a tenant zone).
total (in the **list** section)	No	String	None	How many VPN connections and gateways are available in total.
allocated	Yes	String	None	How many VPN connections and gateways have been allocated.
metric_type	No	String	None	VPN capacity metric, which can be the number of VPN connections or the number of gateways.
avaliable	Yes	String	None	How many VPN connections and gateways still remain.

- **Sample response**

```
HTTP/1.1 200  OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total": 2,
   "list": [
           {
           "service_type": "VPN",
           "total": "0",
           "available": "0",
           "metric_type": "connection",
           "zone_type": "VPN_POD",
           "used": "0",
           "free": "0",
           "used_ratio": "0",
           "region": "cn-east-264",
           "resource_count": "0",
           "allocated": "0",
           "timestamp": "1650211200000"
            },
           {
           "service_type": "VPN",
           "total": "5",
           "available": "5",
           "metric_type": "gateway",
           "zone_type": "VPN_POD",
           "used": "0",
```



```
            "free": "0",
            "used_ratio": "0",
            "region": "cn-east-264",
            "resource_count": "0",
            "allocated": "0",
            "timestamp": "1650211200000"
             }
           ]
}
```


Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	An internal application error occurred.

4.1.4 Querying Audit Logs (Operation Logs)

Function

Query the audit log list.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/cloudAuditlog

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
log_type	No	String	None	Log type. The value can be 0 (operation logs) or 1 (security logs).
begin_time	Yes	long	Millisecond timestamp.	Start time.
end_time	Yes	long	Millisecond timestamp.	End time.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG

Parameter	Mandatory	Type	Value Range	Description
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/cloudAuditlog HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
  - Response status code 200: The Data object is returned. The Data object has the following attributes.

Parameter	Mandatory	Type	Value Range	Description
total	Yes	int32	None	Total number of data records.
list	Yes	List<Item>	None	Process object information.

The Item object has the following attributes.

Parameter	Mandatory	Type	Value Range	Description
id	Yes	String	None	Log ID.
operating_name	Yes	String	None	Operation name.
operating_source	Yes	int32	None	Operation source.
operation_result	Yes	String	None	Operation result. If the value is **0**, the operation succeeds. If the value is **1**, the operation fails.
operation_detail	Yes	String	None	Operation details.
resource_name	Yes	String	None	Resource name.
resource_type	Yes	String	None	Resource type.
operating_user	Yes	String	None	Operator.
department	Yes	String	None	Department.
severity	Yes	String	None	Risk level. The value can be **4** (critical), **3** (major), **2** (minor), or **1** (warning).
type	Yes	String	None	Log type. Value **0** indicates the operation log type. Value **1** indicates the security log type.
start_time	Yes	String	None	Start time.
end_time	Yes	String	None	End time.
resource_id	Yes	String	None	Resource ID.
resource_region	Yes	String	None	Region to which the resource belongs.
source_addr	Yes	String	None	Resource IP address.

Parameter	Mandatory	Type	Value Range	Description
region_id	Yes	String	None	Region ID.
region_name	Yes	String	None	Region name.
resource_region_name	Yes	String	None	Name of the region to which the resource belongs.

- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total": 33,
   "list": [
            {
            "id": "2030",
            "operating_name": "addScheduleSchedule",
"operating_source": " Operation source",
"operation_result": "0 (success); 1 (failure)",
"operation_detail": "Operation details",
            "resource_name": "CloudCapacity",
            "resource_type": "schedule",
            "operating_user": "capacityApi",
"department": "Department",
"severity": "Risk level. 4-critical, 3-major, 2-minor, 1-warning",
"type": "Log type. 0: operation log; 1: security log.",
            "start_time": "2020-11-01 01:13:59",
            "end_time": "2020-11-01 01:13:59",
"resource_id": "Resource ID",
"resource_region": "Resource region name: cn-north-1",
"source_addr": "Resource IP address obtained from regionIp: 10.0.25.204",
            "region_id": "cn-north-1",
            "region_name": "xx-region",
            "resource_region_name": "xx-region"
             }
           ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.

Status Code	Description
403	Authentication failed.
404	REST API not found.

Operation Severity

Minor

4.1.5 Querying Physical Device Details

Function

Query physical device details.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/DeviceAsset/info

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
device_type	No	String	None	Device type, such as **server**, **switch**, **firewall**, and **router**.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/DeviceAsset/info HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```


Response

- **Response parameters**
  - Response status code 200: The Data object is returned. The Data object has the following attributes.

Parameter	Mandatory	Type	Value Range	Description
total	Yes	int32	None	Total number of data records.
list	Yes	List<Item>	None	Process object information.

The Item object has the following attributes.

Parameter	Mandatory	Type	Value Range	Description
device_id	Yes	String	None	Device ID.
name	Yes	String	None	Device name.
device_type	Yes	int32	None	Device type.
running_status	Yes	String	None	Device running status.
model	Yes	String	None	Device specifications.
management_ip	Yes	String	None	IP address of the device management port.
os	Yes	String	None	Operating system of a device.
region	Yes	String	None	Region code.

- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
```



```
   "total": "33",
   "list": [
          {
"device_id": "Physical device ID",
"name": "Device name",
"device_type": "Device type",
"running_status": "running status",
"model": "Device specifications",
"management_ip": "IP address of the device management port",
"os": "Operating system of a device",
           "region": "cn-north-1"
           }
          ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	REST API not found.

Operation Severity

Minor

4.1.6 Querying Cloud Service Alarms

Function

Query cloud service alarms.

SLA Item	Definition
Request success rate	≥99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/CloudServiceAlarm/info

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
cleared	No	String	None	Alarm clearance flag. The value can be **0** (uncleared) or **1** (cleared).
service_type	No	String	None	Cloud service name, which can be ECS or EVS.
begin_time	Yes	String	Millisecond timestamp.	Start time.
end_time	Yes	String	Millisecond timestamp.	End time.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/CloudServiceAlarm/info HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
  - Response status code 200: The Data object is returned. The Data object has the following attributes.

Parameter	Mandatory	Type	Value Range	Description
total	Yes	int32	None	Total number of data records.
list	Yes	List<Item>	None	Process object information.

The Item object has the following attributes.

Parameter	Mandatory	Type	Value Range	Description
csn	Yes	String	None	Alarm sequence number.
alarm_name	Yes	String	None	Alarm name.
alarm_id	Yes	int32	None	Alarm ID.
severity	Yes	String	None	Alarm severity. The value can be **1** (critical), **2** (major), **3** (minor), or **4** (warning).
event_type	Yes	String	None	Event type.
origin_system_type	Yes	String	None	Source system type.
origin_system_name	Yes	String	None	Source system name.
moi	Yes	String	None	Information for alarm locating, which uniquely identifies the alarm.
additional_information	Yes	String	None	Additional information.
latest_occur_utc	Yes	String	None	UTC time when the latest alarm is generated.
first_occur_utc	Yes	String	None	UTC time when an alarm occurs for the first time.
meName	Yes	String	None	Alarm object name.
count	Yes	String	None	Number of alarm occurrences.
probable_cause	Yes	String	None	Possible cause of an alarm.
region	Yes	String	None	Region name.
dc_name	Yes	String	None	Data center name.

Parameter	Mandatory	Type	Value Range	Description
res_pool_name	Yes	String	None	Information about the pod for which an alarm is reported.
azone_name	Yes	String	None	AZ name.
tenant	Yes	String	None	Tenant name.
nativeMeDn	Yes	String	None	Alarm IP address.
moc	Yes	String	None	Object type.
cleared	Yes	String	None	Whether the alarm is cleared.
clear_category	Yes	String	None	Whether the alarm can be automatically cleared.
clear_utc	Yes	String	None	UTC time when the alarm is cleared.
clear_user	Yes	String	None	User who clears the alarm.
clear_type	Yes	String	None	Alarm clearance type.
acked	Yes	String	None	Alarm acknowledgment flag. The value can be **0** (unacknowledged) or **1** (acknowledged).
ack_user	Yes	String	None	User who acknowledges the alarm.
ack_utc	Yes	String	None	UTC time when the alarm is acknowledged.
merge_key	Yes	String	None	Merging key.
me_category	Yes	String	None	Cloud service for which the alarm is generated.
me_type	Yes	String	None	Service for which the alarm is generated.
product_name	Yes	String	None	Microservice for which the alarm is generated.

Parameter	Mandatory	Type	Value Range	Description
LogicalRegionId	Yes	String	None	Region code.
serviceAffectedType	Yes	String	None	Whether the alarm affects services.
affectedService	Yes	String	None	Name of the service affected by the alarm.
meDn	Yes	String	None	Alarm object ID.

- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
"total": "Total number",
   "list": [
          {
          "csn": "12346578",
"alarm_name": "Alarm name",
"alarm_id": "Alarm ID",
"severity": "Alarm severity: 1-critical, 2-major, 3-minor, 4-warning",
"event_type": "Event type",
"origin_system_type": "Source system type",
"origin_system_name": "Source system name",
"moi": "Object ID used to locate an alarm",
"additional_information": "Additional information",
"latest_occur_utc": "UTC time when the latest alarm is generated",
"first_occur_utc": "UTC time when an alarm occurs for the first time.",
"meName": "Alarm object name",
"count": "Number of alarm occurrences",
"probable_cause": "Possible cause of an alarm.",
"region": "Region name",
"dc_name": "Data center name",
"res_pool_name": "Information about the pod for which an alarm is reported.",
"azone_name": "Availability zone name",
"tenant": "Tenant name",
"nativeMeDn": "Alarm IP address",
"moc": "Object type",
"cleared": "Whether the alarm is cleared.",
"clear_category": "Whether an alarm can be automatically cleared.",
"clear_utc": "UTC when an alarm is cleared",
"clear_user": "User who clears an alarm.",
"clear_type": "Alarm clearance type.",
"acked": "Alarm acknowledgment flag. The value can be 0 (unacknowledged) or 1
(acknowledged).",
"ack_user": "User who acknowledges the alarm.",
"ack_utc": "UTC time when an alarm is acknowledged.",
"merge_key": "Merging key",
"me_category": "Cloud service for which the alarm is generated.",
"me_type": "Service for which the alarm is generated",
```



```
"product_name": "Microservice for which the alarm is generated.",
            "LogicalRegionId": "cn-north-201",
"serviceAffectedType": "Affected service ID.",
"affectedService": "Name of the service affected by an alarm.",
"meDn": "Alarm object ID"
             }
           ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.

Operation Severity

Minor

4.1.7 Querying Hardware Alarm Information

Function

Query alarms of hardware devices.

SLA Item	Definition
Request success rate	≥ 99%
Availability	Tier 2
Data consistency	Strongly consistent
Throughput	60 times/minute
TP50 request latency	200 ms
TP99.9 request latency	300 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/DeviceAlarm/info

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
cleared	No	String	None	Alarm clearance flag. The value can be **0** (uncleared) or **1** (cleared).
service_type	No	String	None	Cloud service name, which can be **Server** or **Network**.
begin_time	Yes	String	Millisecond timestamp.	Start time.
end_time	Yes	String	Millisecond timestamp.	End time.
page_size	Yes	int	0~1000	Page size.
offset_value	Yes	int	None	Start value for the query.

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	String	None	AppCode allocated by SRE
x-auth-token	Yes	String	None	IAM authentication token for the calling party APIG

Parameter	Mandatory	Type	Value Range	Description
x-hcso-domainid	Yes (HCS Online scenario) No (other scenarios)	String	None	ID of the accessed tenant.
x-hcso-appcode	Yes	String	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/DeviceAlarm/info HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
  - Response status code 200: The Data object is returned. The Data object has the following attributes.

Parameter	Mandatory	Type	Value Range	Description
total	Yes	int32	None	Total number of data records.
list	Yes	List<Item>	None	Process object information.

The Item object has the following attributes.

Parameter	Mandatory	Type	Value Range	Description
csn	Yes	String	None	Alarm sequence number.
alarm_name	Yes	String	None	Alarm name.
alarm_id	Yes	int32	None	Alarm ID.
severity	Yes	String	None	Alarm severity. The value can be **1** (critical), **2** (major), **3** (minor), or **4** (warning).
event_type	Yes	String	None	Event type.
origin_system_type	Yes	String	None	Source system type.
origin_system_name	Yes	String	None	Source system name.
moi	Yes	String	None	Information for alarm locating, which uniquely identifies the alarm.
additional_information	Yes	String	None	Additional information.
latest_occur_utc	Yes	String	None	UTC time when the latest alarm is generated.
first_occur_utc	Yes	String	None	UTC time when an alarm occurs for the first time.
meName	Yes	String	None	Alarm object name.
count	Yes	String	None	Number of alarm occurrences.
probable_cause	Yes	String	None	Possible cause of an alarm.
region	Yes	String	None	Region name.
dc_name	Yes	String	None	Data center name.

Parameter	Mandatory	Type	Value Range	Description
res_pool_name	Yes	String	None	Information about the pod for which an alarm is reported.
azone_name	Yes	String	None	AZ name.
tenant	Yes	String	None	Tenant name.
nativeMeDn	Yes	String	None	Alarm IP address.
moc	Yes	String	None	Object type.
cleared	Yes	String	None	Whether the alarm is cleared.
clear_category	Yes	String	None	Whether an alarm can be automatically cleared.
clear_utc	Yes	String	None	UTC time when an alarm is cleared.
clear_user	Yes	String	None	User who clears an alarm.
clear_type	Yes	String	None	Alarm clearance type.
acked	Yes	String	None	Alarm acknowledgment flag. The value can be **0** (unacknowledged) or **1** (acknowledged).
ack_user	Yes	String	None	User who acknowledges the alarm.
ack_utc	Yes	String	None	UTC time when the alarm is acknowledged.
merge_key	Yes	String	None	Merging key.
me_category	Yes	String	None	Cloud service for which the alarm is generated.
me_type	Yes	String	None	Service for which the alarm is generated.
product_name	Yes	String	None	Microservice for which the alarm is generated.

Parameter	Mandatory	Type	Value Range	Description
LogicalRegionId	Yes	String	None	Region code.
serviceAffectedType	Yes	String	None	Whether the alarm affects services.
affectedService	Yes	String	None	Name of the service affected by the alarm.
meDn	Yes	String	None	Alarm object ID.

- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
"total": "Total number",
   "list": [
          {
          "csn": "12346578",
"alarm_name": "Alarm name",
"alarm_id": "Alarm ID",
"severity": "Alarm severity: 1-critical, 2-major, 3-minor, 4-warning",
"event_type": "Event type",
"origin_system_type": "Source system type",
"origin_system_name": "Source system name",
"moi": "Object ID used to locate an alarm",
"additional_information": "Additional information",
"latest_occur_utc": "UTC time when the latest alarm is generated",
"first_occur_utc": "UTC time when an alarm occurs for the first time.",
"meName": "Alarm object name",
"count": "Number of alarm occurrences",
"probable_cause": "Possible cause of an alarm.",
"region": "Region name",
"dc_name": "Data center name",
"res_pool_name": "Information about the pod for which an alarm is reported.",
"azone_name": "Availability zone name",
"tenant": "Tenant name",
"nativeMeDn": "Alarm IP address",
"moc": "Object type",
"cleared": "Whether the alarm is cleared.",
"clear_category": "Whether an alarm can be automatically cleared.",
"clear_utc": "UTC when an alarm is cleared",
"clear_user": "User who clears an alarm.",
"clear_type": "Alarm clearance type.",
"acked": "Alarm acknowledgment flag. The value can be 0 (unacknowledged) or 1
(acknowledged).",
"ack_user": "User who acknowledges the alarm.",
"ack_utc": "UTC time when an alarm is acknowledged.",
"merge_key": "Merging key",
"me_category": "Cloud service for which the alarm is generated.",
"me_type": "Service for which the alarm is generated",
```



```
"product_name": "Microservice for which the alarm is generated.",
            "LogicalRegionId": "cn-north-201",
"serviceAffectedType": "Affected service ID.",
"affectedService": "Name of the service affected by an alarm.",
"meDn": "Alarm object ID"
             }
           ]
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	REST API not found.

Operation Severity

Minor

4.1.8 Querying Host Metric Data

Function

Query host metric data.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/host/metricdata

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
host_id	Yes	string	None	Host ID
begin_time	Yes	integer	None	Start time
end_time	Yes	integer	None	End time
offset_value	No	integer	None	Offset: greater than or equal to 0
page_size	No	integer	0~1000	Page size: greater than or equal to 0

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/host/metricdata HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "total": 12132,
   "list": [
          {
          "time_stamp": "1697372808000",
          "monitor_item": "memory",
          "region_id": "cn-north-xx",
          "az_name": "",
          "metrics_name": "Memory",
          "operator": "AVG",
          "host_id": "00700188-9859-xxx8-8889-71axxx4565",
          "az_id": "",
          "unit": "\\%",
          "az_name_en": "",
          "region_name": "",
          "data_item": "usage",
          "region_name_en": "",
          "value": "79.81"
           }
         ]
}
```

Status code

Status code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.9 Querying Server Performance Data

Function

Query server performance data.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/host/performancedata

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
sn	No	string	None	Host SN UUID
begin_time	Yes	long	Millisecond timestamp	Start time
end_time	Yes	long	Millisecond timestamp	End time
offset_value	No	integer	None	Offset: greater than or equal to 0

Parameter	Mandatory	Type	Value Range	Description
page_size	No	integer	0~1000	Page size: greater than or equal to 0

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/host/performancedata HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
    "total": 5,
    "list": [
            {
            "dc_code": "WC_WUH_18",
            "az_code": "cn-north-7",
            "usage": "mgt|mgt-can",
```



```
            "room_code": "wuhd22",
            "dates": "2024-01-08",
            "metric": "CPUUsagePercent",
            "pack_code": "wuhd22-c-01-7",
            "model": "2288X V5",
            "time": "2024-01-08 0:00",
            "sn": "xxx",
            "value": "38",
            "region_code": "cn-north-7",
            "slot_number": "4"
             }
           ]
}
```


Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.10 Querying Tenant Cloud Resources

In this version, the following types of Huawei Cloud tenant cloud resources can be queried: ECS, BMS, EVS, and OBS.

4.1.10.1 Querying ECS Resource Details

Function

Query ECS resource details.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS

SLA Item	Definition
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/TanentCloudResource/InstanceData/ECS

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/TanentCloudResource/InstanceData/ECS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
```



```
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.10.2 Querying EVS Resource Details

Function

Query EVS resource details.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/TanentCloudResource/InstanceData/EVS

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/TanentCloudResource/InstanceData/EVS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.10.3 Querying OBS Resource Details

Function

Query OBS resource details.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/TanentCloudResource/InstanceData/OBS

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/TanentCloudResource/InstanceData/OBS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
```


Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.10.4 Querying BMS Resource Details

Function

Query BMS resource details.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/TanentCloudResource/InstanceData/BMS

Path parameters

None

Query parameters

None

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/TanentCloudResource/InstanceData/BMS HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.

Status Code	Description
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.11 Querying ELBv3 Resource Details

Function

Query ELBv3 resource details.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/network/capacity/elbv3

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
page_size	Yes	int	0~1000	Page size
offset_value	Yes	int	None	Query start value

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/cloudresource/elbv3 HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
    "total": 1,
    "list": [
```



```
            {
            "ms_nodes_list": "",
            "cluster_name": "",
            "lb_count": "164",
            "time_stamp": "1718259970000",
            "l4_member_capacity": "30000",
            "l7_member_capacity": "20000",
            "region_id": "cn-north-7",
            "type": "ELBv3",
            "l4_listener_capacity": "10000",
            "l4_listener_count": "319",
            "lb_v5_count": "40",
            "l7_listener_capacity": "5000",
            "lb_capacity": "8000",
            "cluster_id": "4951ba23-0eb6-4dd5-92fc-22e94dc75a78",
            "l4_member_count": "",
            "l7_member_count": "182",
            "l7_listener_count": "82",
            "region_name": "",
            "cluster_code": "elbv3-cluster01-az1"
             }
           ]
}
```


Status Codes

Status Code	Description
400	Operation successful.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.12 Querying External Tenant Resources

Function

Query external tenant resources.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.

SLA Item	Definition
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v2/cloudresource/instancedata/{resource_type}

Path parameters

Parameter	Mandatory	Type	Value Range	Description
resource_type	Yes	string	• ECS • EVS • EIP • OBS • BMS • ELB • VPN • DCS • DMS • RDS • GAUSS • MODEL_ARTS_INF • MODEL_ARTS_TRAIN • MODEL_ARTS_MAOS	Resource Type

Query parameters

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	integer	None	Start time
end_time	Yes	integer	None	End time
offset_value	No	integer	None	Offset: greater than or equal to 0
page_size	No	integer	0~1000	Page size: greater than or equal to 0

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v2/cloudresource/instancedata/{resource_type} HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-APIG-Appcode: xxx
x-auth-token: xxx
x-hcso-domainid: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
```



```
Server: example.com
Content-Type: application/json;charset=UTF8
{
   "list": [
          {
          "accumulate_factor_name": "Duration",
          "accumulate_factor_value": "3600",
          "az_code": "cn-north-213a",
          "begin_time": "20240301220000",
          "bp_info": "",
          "cloud_service_type_code": "hws.service.type.ec2",
          "csb_params": "::DBSS-9bae:d8c249f201b34a4eb7f739f3471d1532:",
          "domain_id": "d1803845584b4626850ce57a8a020e4f",
          "domain_name": "op_svc_dbss_e9f3e8381583492191a9d0c4ba725333",
          "enterprise_project_id": "",
          "error_msg": "",
          "extend_params": "2",
          "extend_params2": "",
          "record_type": "20",
          "region_code": "cn-north-213",
          "relate_parent_resource": "",
          "relate_root_resource": "",
          "resource_id": "f0ae18b6-40d2-4162-9d6a-7697b9b7eacc",
          "resource_spec_code": "ks1.xlarge.2.linux",
          "resource_type_code": "hws.resource.type.vm",
          "site_code": "",
          "tag": "",
          "time_stamp": "20240409231657",
          "project_id": "d1803845584b4626850ce57a8a020emf"
           }
         ],
         "total": 31416
}
```

Status Codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.13 Querying Network Device Monitoring Data

Function

Query network device monitoring data.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/network-device/metric-data

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	integer	None	Start time
end_time	Yes	integer	None	End time
offset_value	Yes	integer	None	Offset: greater than or equal to 0
page_size	Yes	integer	Default value: **500**	Page size: greater than or equal to 0
management_ip	No	string	None	Management IP address of a network device

Parameter	Mandatory	Type	Value Range	Description
metric	No	string	Value range: 59, 60, 14, 18, 101, 102, 61, 52	Device metrics

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/network-device/metric-data?
begin_time=0&end_time=0&offset_value=0&page_size=1
Content-Type: application/json
Accept: application/json
X-Auth-Token: xxx
x-hcso-appcode: xxx
```

Response

- **Response parameters**

Parameter	Mandatory	Type	Value Range	Description
device_ip	Yes	string	None	Management IP address of a network device
res_type	Yes	string	None	Resource type

Parameter	Mandatory	Type	Value Range	Description
metric	Yes	string	None	Device metrics
region_id	Yes	string	None	Region code
value	Yes	string	None	Metric value
timestamp	Yes	string	None	Timestamp

- **Sample response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF8
{
   "total": 1698669,
   "list": [
      {
         "device_ip": "xx.xx.xx.xx",
         "res_type": "2",
         "metric": "14",
         "region_id": "cn-north-7",
         "value": "0",
         "timestamp": "1726819320000"
      }
   ]
}
```

Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.14 Querying Host Configuration Details

Function

Query host configuration details.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/host/detail

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	integer	None	Start time
end_time	Yes	integer	None	End time
offset_value	Yes	integer	None	Offset: greater than or equal to 0
page_size	Yes	integer	Default value: **500**	Page size: greater than or equal to 0
host_id	No	string	None	Host ID

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/host/detail?
begin_time=0&end_time=0&offset_value=0&page_size=1
Content-Type: application/json
Accept: application/json
X-Auth-Token: xxxxx
x-hcso-appcode: xxxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF8
{
   "total": 1,
   "list": [
      {
         "REGION_ID": "cn-north-7",
         "HOST_ID": "dea41fb4-2583-45d7-a4b1-22d8d27c5024",
         "HOST_NAME": "ecs_4-CXXX034",
         "MANUFACTURER": "cn-north-7",
         "KERNEL": "0",
         "CPU": "[{"cores":"22","model":"Intel(R) Xeon(R) Gold 6161 CPU @
2.20GHz","threads":"2","cpu":"2 * 22 * 2 * Intel(R) Xeon(R) Gold 6161 CPU @
2.20GHz","sockets":"2"}]",
         "MEMORY": "[{"frequency":"2666
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"},{"frequency":"2666
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"},{"frequency":"2666
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"},{"frequency":"2666
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"},{"frequency":"2666
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"},{"frequency":"2666
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"},{"frequency":"2666
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"},{"frequency":"2666
```



```
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"},{"frequency":"2666
MHz","manufacturer":"Micron","type":"DDR4","size":"32 GB"}]",
            "DISK": "[{"disk":"/dev/sda:599.0GB"},{"disk":"/dev/sdb:1598.0GB"},{"disk":"/dev/
sdc:10.7GB"}]",
            "MAC_IP": "xx.xx.xx.xx",
            "NETWORK_ADAPTER": "1",
            "RAID": "1",
            "SN": "abfa96bc-29f6-4571-bfba-fcfdf6ad6ebb",
            "CPU_ARCH": "x86_64",
            "AZ_CODE": "1",
            "POD_CODE": "1",
            "CLUSTER_NAME": "ecs",
            "ROOM_CODE": "1",
            "RACK_CODE": "1",
            "DC_CODE": "1"
        }
    ]
}
```


Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.15 Querying VM Performance Data

Function

Query VM performance data.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms

SLA Item	Definition
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/ecs/performance

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
begin_time	Yes	integer	None	Start time
end_time	Yes	integer	None	End time
offset_value	Yes	integer	None	Offset: greater than or equal to 0
page_size	Yes	integer	Default value: **500**	Page size: greater than or equal to 0
vm_id	No	string	None	VM ID

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG

Parameter	Mandatory	Type	Value Range	Description
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/ecs/performance?
begin_time=0&end_time=0&offset_value=0&page_size=1
Content-Type: application/json
Accept: application/json
X-Auth-Token: xxxxx
x-hcso-appcode: xxxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF8
{
   "total": 1,
   "list": [
      {
         "SERVICE": "ECS",
         "REGION_ID": "cn-north-7",
         "NAMESPACE": "ecs",
         "SOURCE_SERVICE": "CES",
         "SOURCE_TYPE": "TenantMon",
         "SOURCE_TAG": "CN_NORTH_7_ECS",
         "TENANT_NAME": "xxx",
         "METRIC_NAME": "cpu_usage",
         "METRIC_VALUE": "10",
         "METRIC_UNIT": "%",
         "INSTANCE_ID": "abfa96bc-29f6-4571-bfba-fcfdf6ad6ebb",
         "TIMESTAMP": "1726819320000"
      }
   ]
}
```

Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter error.
401	Token authentication failed.

Status Code	Description
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.1.16 Querying the Relationship Between Hosts and VMs

Function

Query the relationship between hosts and VMs.

SLA Item	Definition
Request success rate	≥ 99.9%
Availability	Tier 1
Data consistency	Eventual consistency can be achieved. The duration of inconsistency is less than 1 minute.
Throughput	4000 TPS
TP50 request latency	2 ms
TP99.9 request latency	5 ms

Precautions

None

Calling Method

GET

URI

/rest/dataapi/homs/open-api/v1/host/vms

Path parameters

None

Query parameters

Parameter	Mandatory	Type	Value Range	Description
page_size	Yes	integer	Default value: **500**	Page size: greater than or equal to 0
host_id	Yes	string	None	Host ID
offset_value	Yes	integer	None	Offset: greater than or equal to 0

Request

- **Request header parameters**

Parameter	Mandatory	Type	Value Range	Description
X-APIG-Appcode	Yes	string	None	AppCode allocated by SRE
x-auth-token	Yes	string	None	IAM authentication token for the calling party APIG
x-hcso-domainid	No	string	None	ID of the accessed tenant. This parameter is mandatory only in the HCS Online scenario.
x-hcso-appcode	Yes	string	None	AppCode allocated by SRE

- **Request body parameters**

  None

- **Sample request**

```
GET /rest/dataapi/homs/open-api/v1/host/vms?host_id=abfa96bc-29f6-4571-bfba-fcfdf6ad6ebb&offset_value=0&page_size=1
Content-Type: application/json
Accept: application/json
X-Auth-Token: xxxxx
x-hcso-appcode: xxxx
```

Response

- **Response parameters**
- **Sample response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF8
{
   "total": 1,
   "list": [
      {
         "region_id": "cn-north-7",
         "host_name": "CN_NORTH_7_ECS",
```



```
            "vm_list": "[['', '', 'Euler', '[{"cores":"1","model":"","threads":"1","cpu":"16 * 1 * 1 *
","sockets":"16"}]']]",
            "host_id": "abfa96bc-29f6-4571-bfba-fcfdf6ad6ebb",
            "host_ip": "xx.xx.xx.xx",
            "last_update_time": "1726819320000"
        }
    ]
}
```


Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The API was not found.

Operation Severity

Minor

4.2 SDRs

4.2.1 Creating a Query Task

Function

Create a query task.

Precautions

None

Calling Method

POST

URI

/meter/v1/{domain_id}/query-jobs

Path parameters

Parameter	Mandatory	Type	Value Range	Description
domain_id	Yes	string	Regular expression: ^[-_0-9a-zA-Z]{0,36}$	Tenant ID of ESM.

Query parameters

None

Request

- **Request header parameters**
  For details, see the header description in the sample request.
- **Request body parameters**

  Table 4-2 CreateQueryJobRequest object attributes

Parameter	Mandatory	Type	Value Range	Description
hcso_id	No	string	Regular expression: ^[-_0-9a-zA-Z]{0,36}	hcso id
region_id	No	string	Regular expression: ^[-_0-9a-zA-Z]{0,255}	hcso id
min_sdr_time	No	string	Regular expression: ^\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{2}$	Time when you start querying SDRs: **2022-01-01 00:00:00**
max_sdr_time	No	string	Regular expression: ^\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{2}$	Time when you stop querying SDRs: **2022-01-31 00:00:00**

- **Sample request**

```
POST /meter/v1/{domain_id}/query-jobs HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-Auth-Token: xxx
{
```



```
    "hcso_id": "xxx",
    "region_id": "region",
    "min_sdr_time": "2022-01-01 00:00:00",
    "max_sdr_time": "2022-02-01 00:00:00"
}
```

Response

- **Response parameters**
  - Response status code: 201. CreateQueryJobResponse is returned.

    Table 4-3 CreateQueryJobResponse object attributes

Parameter	Mandatory	Type	Value Range	Description
job_id	No	string	None	Task ID

- **Sample response**

```
HTTP/1.1 201 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
    "job_id": "xxx"
}
```

Status Codes

Table 4-4 Status codes

Status Code	Description
201	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	Internal error.

Operation Severity

Minor

4.2.2 Querying the Task Status

Function

Query the task status.

Precautions

None

Calling Method

GET

URI

/meter/v1/{domain_id}/query-jobs/{job_id}

Path parameters

Table 4-5 Path parameters

Parameter	Mandatory	Type	Value Range	Description
job_id	Yes	string	Regular expression: ^[-_0-9a-zA-Z]{0,36}$	Task ID
domain_id	Yes	string	Regular expression: ^[-_0-9a-zA-Z]{0,36}$	Tenant ID of ESM.

Query parameters

None

Request

- **Request header parameters**

  For details, see the header description in the sample request.

- **Request body parameters**

  None

- **Sample request**

```
GET /meter/v1/{domain_id}/query-jobs/{job_id} HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-Auth-Token: xxx
```

Response

- **Response parameters**
  - Response status code: 200. QueryJobVo is returned.

Table 4-6 QueryJobVo object attributes

Parameter	Mandatory	Type	Value Range	Description
id	Yes	string	None	Task ID
status	Yes	string	None	Task status (**success**, **failure**, **running**, or **pending**)
progress	Yes	int32	None	Task progress: 0-100%

- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
Content-Type: application/json;charset=UTF8
{
    "id": "xxx",
    "status": "success",
    "progress": 100
}
```

Status Codes

Table 4-7 Status codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	Internal error.

Operation Severity

Minor

4.2.3 Querying Job Data

Function

Query job data.

Precautions

None

Calling Method

POST

URI

/meter/v1/{domain_id}/query-jobs/{job_id}/sdr

Path parameters

Parameter	Mandatory	Type	Value Range	Description
job_id	Yes	string	Regular expression: ^[-_0-9a-zA-Z]{0,36}$	job id
domain_id	Yes	string	Regular expression: ^[-_0-9a-zA-Z]{0,36}$	Tenant ID of ESM.

Query parameters

None

Request

- **Request header parameters**
  For details, see the header description in the sample request.
- **Request body parameters**

Table 4-8 QueryJobSdrRequest object attributes

Parameter	Mandatory	Type	Value Range	Description
marker	No	string	Regular expression: ^[-_+/=0-9a-zA-Z]{0,200} Default value: ""	Query flag, which is in the previous response. It is not required upon the first query.
limit	No	int32	1~200 Default value: **100**	Number of returned SDRs

- **Sample request**

```
GET /meter/v1/{domain_id}/query-jobs/{job_id}/sdr HTTP/1.1
Host: example.com
Content-Type: application/json
Accept: application/json
X-Auth-Token: xxx
{
   "marker": "xxx",
   "limit": 10
}
```

Response

- **Response parameters**
  - Response status code: 200. QueryJobSdrResponse is returned.

Table 4-9 QueryJobSdrResponse object attributes

Parameter	Mandatory	Type	Value Range	Description
data	No	List<SdrRecordVo>	None	SDR data
marker	No	string	None	Query flag in the next query. If this parameter is left blank, all data has been returned.

- **Sample response**

```
HTTP/1.1 200 OK
Date:Tue,18 Jul 2023 09:58:01 GMT
Server: example.com
```



```
Content-Type: application/json;charset=UTF8
{
    "data": [],
    "marker": "xxx"
}
```

Status Codes

Table 4-10 Status codes

Status Code	Description
200	Operation successful.
400	Parameter error.
401	Token authentication failed.
403	Authentication failed.
404	The REST API was not found.
500	Internal error.

Operation Severity

Minor

5 Permissions and Supported Actions

This chapter describes fine-grained permissions management for your ESM. If your Huawei Cloud account does not require individual IAM users, skip this section.

New IAM users do not come with default permissions. You need to add them to one or more groups and then attach policies or roles to these groups. The users then inherit permissions from the groups and can perform specified operations on cloud services based on the permissions they have been assigned.

You can grant permissions using roles and policies. Roles are provided by IAM to define service-based permissions that match users' job responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

For more information about system policies supported by ESM, see Permissions Management.

NOTE

If you want to allow or deny the access to an API, use policy-based authorization.

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions. The permissions required for calling an API are determined by the actions supported by the API. Only IAM users who have been granted permissions allowing the actions can call the API successfully.

Supported Actions

ESM provides system-defined policies that can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- Permissions: statements in a policy that allow or deny certain operations.
- APIs: REST APIs that can be called by a user who has been granted specific permissions.
- Actions: specific operations that are allowed or denied.

- Dependencies: actions which a specific action depends on. When allowing an action for a user, you also need to allow any existing action dependencies for that user.
- Authorization scope: Type of projects in which policies can be used to grant permissions. A policy can be applied to IAM projects, enterprise projects, or both. Policies that contain actions for both IAM and enterprise projects can be used and applied for both IAM and Enterprise Management. Policies that contain actions only for IAM projects can be used and applied to IAM only. For details about the differences between IAM and enterprise projects, see **What Are the Differences Between IAM Projects and Enterprise Projects?**

6 Appendixes

6.1 Status Codes

Table 6-1 describes common status codes.

Table 6-1 Returned status codes

Status Code	Description
200	OK
201	Created
202	Accepted
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
405	Method Not Allowed
409	Conflict
413	Request Entity Too Large
415	Unsupported Media Type
429	Too Many Requests
500	Internal Server Error
501	Not Implemented
503	Service Unavailable

7 Change History

Released On	Description
2025-03-30	This issue is the sixth official release.
2024-10-30	This issue is the fifth official release.
2024-07-30	This issue is the fourth official release.
2024-04-30	This issue is the third official release.
2023-11-30	This issue is the second official release.
2023-10-30	This issue is the first official release.

