

CloudPond

API Reference

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1 Before You Start

1.1 Overview

Welcome to CloudPond. CloudPond extends the cloud infrastructure and cloud services to your on-premises facility to allow you to enjoy ultra-low latency and faster access to applications on the cloud. It is suitable for scenarios that have high requirements for network latency, local data storage, and interaction with on-premises systems.

This document describes how to use application programming interfaces (APIs) to perform operations on CloudPond, such as registering an edge site. For details about all supported operations, see [API Overview](#).

Endpoint

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the endpoints of all services, see [Regions and Endpoints](#).

Notes and Constraints

For more constraints, see API description.

API Calling

CloudPond supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see [Calling APIs](#).

1.2 Concepts

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

- **IAM user**
An IAM user is created by an account to use cloud services. Each IAM user has its own identity credentials (password or access keys).
The account name, username, and password will be required for API authentication.
- **Region**
Regions are divided based on 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 into universal regions and 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 of one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Computing, 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.

2 API Overview

You can use CloudPond APIs to better use CloudPond functions.

Table 2-1 CloudPond APIs

Category	Description
Offerings	Query the offering list of servers and network devices.
Storage Types	Query the list of supported storage types, including purchase increments.
Storage Pools	Query the storage pool list and details.
Storage Billing Tiers	Query storage billing tiers. You can specify the actual storage capacity.
Sales Cycles	Query available sales cycles.
Servers	Query the server list and details.
Network Devices	Query the network device list and details.
Edge Sites	Register, query, and delete edge sites.
Quotas	Query resource quotas, including the quota limit and used quotas
Regions	Query the regions that support CloudPond.
Areas	Query the areas that support CloudPond.
Edge Site Monitoring	View resource capacity at an edge site.
Racks	Query the rack list and details.

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for **obtaining a user token** as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

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 the request URI to be transmitted separately.

Table 3-1 URI parameter description

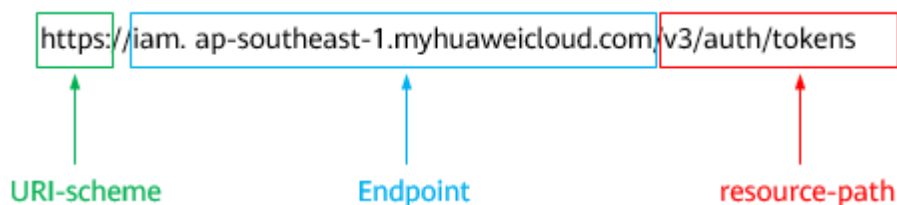
Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from Regions and Endpoints . For example, the endpoint of IAM in the CN-Hong Kong region is iam.ap-southeast-1.myhuaweicloud.com .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, resource-path of the API used to obtain a user token is /v3/auth/tokens .
query-string	An optional query parameter. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, ? limit=10 indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **CN-Hong Kong** region, obtain the endpoint of IAM (**iam.ap-southeast-1.myhuaweicloud.com**) for this region and

resource-path (/v3/auth/tokens) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

```
https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
```

Figure 3-1 Example URI



NOTE

To simplify the URI display in this document, each API is provided only with a **resource-path** and a request method. **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	Requests the server to delete specified resources, for example, an object.
HEAD	Requests the server to return the response header only.
PATCH	Requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

For example, in the case of the API used to **obtain a user token**, the request method is **POST**. The request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
```

Request Header

You can also 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

Parameter	Description	Mandatory	Example Value
Host	Requested server information, which can be obtained from the URL of the service API. The value is in the format of <i>Hostname:Port number</i> . If the port number is not specified, the default port is used. The default port number for https is 443 .	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	The request body type or format. The default value application/json is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	The length of the request body. The unit is byte.	No	3495

Parameter	Description	Mandatory	Example Value
X-Auth-Token	User token. The user token is a response to the API used to obtain a user token . This API is the only one that does not require authentication. After the request is processed, the value of X-Subject-Token in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQc-Co...ggg1BBIINPXsidG9rZ

NOTE

In addition to token-based authentication, APIs also support authentication using access key ID/secret access key (AK/SK). During AK/SK-based authentication, an SDK is used to sign the request, and the **Authorization** (signature information) and **X-Sdk-Date** (time when the request is sent) header fields are automatically added to the request.

For more information, see "AK/SK-based Authentication" in [Authentication](#).

The API used to [obtain a user token](#) does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

(Optional) Request Body

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

The request body varies between APIs. Some APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to [obtain a user token](#), the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*, *domainname*, ******* (login password), and *xxxxxxxxxxxxxxxxxxxx* (project name) with the actual values. You can obtain region names from [Regions and Endpoints](#).

 NOTE

The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see [Obtaining a User Token](#).

POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json

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

If all data required for the API request is available, you can send the request to call the API through [curl](#), [Postman](#), or coding. In the response to the API used to obtain a user token, **x-subject-token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

3.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. This method is recommended because it is more secure than token-based authentication.

Token-based Authentication

 NOTE

The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API. You can obtain a token by calling the API for [obtaining a user token](#).

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

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

You can obtain a token by calling the API for [obtaining a user token](#). When you call the API, set **auth.scope** in the request body to **domain**.

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

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.

In AK/SK-based authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- **AK**: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- **SK**: secret access key used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or use the signing SDK to sign requests. For details about how to sign requests and use the signing SDK, see [API Request Signing Guide](#).

 NOTE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

3.3 Response

Status Code

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](#).

For example, if status code **201** is returned for calling the API used to [obtain a user token](#), the request is successful.

Response Header

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

[Figure 3-2](#) shows the response header fields for the API used to [obtain a user token](#). The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

Figure 3-2 Header fields of the response to the request for obtaining a user token

```
connection → keep-alive
content-type → application/json
date → Tue, 12 Feb 2019 06:52:13 GMT
server → Web Server
strict-transport-security → max-age=31536000; includeSubdomains;
transfer-encoding → chunked
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5
x-subject-token → fj3KxHRj+CRzTuiwopvow-0fM1x0CCKn0n0n1m0zvw0r~1200v0xy--
x-xss-protection → 1; mode=block;
```

(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 **obtain a user token**.

```
{
  "token": {
    "expires_at": "2019-02-13T06:52:13.855000Z",
    "methods": [
      "password"
    ],
    "catalog": [
      {
        "endpoints": [
          {
            "region_id": "az-01",
            .....

```

If an error occurs during API calling, an error code and a 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 response body, **error_code** is an error code, and **error_msg** provides information about the error.

4 API

4.1 Offerings

4.1.1 Querying Server Offerings

Function

This API is used to query server offerings.

URI

GET /v2/{domain_id}/server-offerings

Table 4-1 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-2 Query parameters

Parameter	Mandatory	Type	Description
zone_code	No	String	Area code.
pay_mode	No	Array of strings	Billing mode.
period_num	No	Array of integers	Purchase duration.
limit	No	Integer	The number of records on each page.
marker	No	String	Pagination marker.

Request Parameters

Table 4-3 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-4 Response body parameters

Parameter	Type	Description
offerings	Array of ServerOffering objects	Offering list.
page_info	PageInfo object	Pagination information.

Table 4-5 ServerOffering

Parameter	Type	Description
id	String	The server offering ID.
zone_code	String	Area code, which indicates that devices can be purchased and deployed in this area.
scene_code	String	Sales scenario code.
status	String	Rack status. Options: • TESTING: Racks are being tested. • ONSALE: Racks are available for sale. • SUSPENDED: Racks are suspended. • RETIREMENT: Racks are retired.
spec	ServerSpec object	Server specifications.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
sale_cycles	Array of SaleCycle objects	Objects of the sales cycle.

Table 4-6 ServerSpec

Parameter	Type	Description
id	String	Server flavor ID.
name	String	Server flavor name.
server_type	String	Server type. Options: COMPUTE : Computing servers NETWORK : Network servers BLOCK_STORAGE : Disk storage servers
flavor_type	String	Server flavor type.
performance_type	String	ECS flavor categories, for example, general computing, cloud desktop, and gateway.
power	Integer	Server power (W).
unit	Integer	Height of a device. U spaces.
vcpus	Integer	The number of available vCPU cores.
memory	Integer	Available memory (GB).
storage_capacity	Integer	Available storage capacity (TiB).
cpu_name	String	CPU name.
cpu_architecture	String	CPU architecture.

Table 4-7 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 4-8 SaleCycle

Parameter	Type	Description
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront
period_type	String	Subscription period type. • year: Yearly
period_num	Integer	The number of subscription periods.

Table 4-9 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying server offerings

```
GET https://{ies_endpoint}/v2/{domain_id}/server-offerings
```

Example Response

Status code: 200

successful operation

```
{
  "offerings" : [ {
    "id" : "00000000-0000-000-0000-000000000000",
    "zone_code" : "CN",
    "scene_code" : "normal",
    "status" : "ONSALE",
    "spec" : {
      "id" : "00000000-0000-000-0000-000000000000",
      "name" : "S7",
      "server_type" : "COMPUTE",
      "flavor_type" : null,
      "performance_type" : "normal",
      "power" : 10,
      "unit" : 3,
      "vcpus" : 100,
      "memory" : 800,
      "storage_capacity" : 3000,
      "cpu_name" : "",

```

```
{
  "cpu_architecture" : "X86"
},
"product_info" : {
  "cloud_service_type" : "hws.service.type.ies",
  "resource_type" : "hws.resource.type.lesserver",
  "resource_spec_code" : "ies.cbu.testcompute"
},
"sale_cycles" : [ {
  "pay_mode" : "HALF",
  "period_type" : "year",
  "period_num" : 3
}, {
  "pay_mode" : "FULL",
  "period_type" : "year",
  "period_num" : 3
} ]
},
"page_info" : {
  "current_count" : 1
}
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.1.2 Querying Network Device Offerings

Function

This API is used to query network device offerings.

URI

GET /v2/{domain_id}/network-device-offerings

Table 4-10 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-11 Query parameters

Parameter	Mandatory	Type	Description
zone_code	No	String	Area code.

Parameter	Mandatory	Type	Description
storage_type	No	Array of strings	Storage types.
pay_mode	No	Array of strings	Billing mode.
period_num	No	Array of integers	Purchase duration.
limit	No	Integer	The number of records on each page.
marker	No	String	Pagination marker.

Request Parameters

Table 4-12 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-13 Response body parameters

Parameter	Type	Description
offerings	Array of NetworkDeviceOffering objects	Offering list.
page_info	PageInfo object	Pagination information.

Table 4-14 NetworkDeviceOffering

Parameter	Type	Description
id	String	Sales strategy ID.
zone_code	String	Area code, which indicates that devices can be purchased and deployed in this area.
scene_code	String	Sales scenario code.

Parameter	Type	Description
status	String	Rack status. Options: • TESTING: Racks are being tested. • ONSALE: Racks are available for sale. • SUSPENDED: Racks are suspended. • RETIREMENT: Racks are retired.
spec	NetworkDeviceSpec object	Network device specifications.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
sale_cycles	Array of SaleCycle objects	Objects of the sales cycle.

Table 4-15 NetworkDeviceSpec

Parameter	Type	Description
id	String	Network device specification ID.
name	String	Network device specification name.
power	Integer	Device power (W).
unit	Integer	Height of a device. U spaces.
performance_type	String	Usage.

Table 4-16 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 4-17 SaleCycle

Parameter	Type	Description
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront
period_type	String	Subscription period type. • year: Yearly
period_num	Integer	The number of subscription periods.

Table 4-18 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying network device offerings

```
GET https://{ies_endpoint}/v2/{domain_id}/network-device-offerings
```

Example Response

Status code: 200

successful operation

```
{
  "offerings" : [ {
    "id" : "00000000-0000-000-0000-000000000000",
    "zone_code" : "CN",
    "scene_code" : "normal",
    "status" : "ONSALE",
    "spec" : {
      "id" : "00000000-0000-000-0000-000000000000",
      "name" : "network_device01",
      "power" : 1000,
      "unit" : 3,
      "performance_type" : "normal"
    },
    "product_info" : {
      "cloud_service_type" : "hws.service.type.ies",
      "resource_type" : "hws.resource.type.iesserver",
      "resource_spec_code" : "ies.cbu.testnetwork"
    }
  }
]
```

```
"sale_cycles" : [ {  
  "pay_mode" : "HALF",  
  "period_type" : "year",  
  "period_num" : 3  
}, {  
  "pay_mode" : "FULL",  
  "period_type" : "year",  
  "period_num" : 3  
}  
],  
"page_info" : {  
  "current_count" : 1  
}  
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.2 Storage Types

4.2.1 Querying Storage Types

Function

This API is used to query the supported storage types, including purchase increments.

URI

GET /v2/{domain_id}/storage-types

Table 4-19 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-20 Query parameters

Parameter	Mandatory	Type	Description
zone_code	No	String	Area code.

Parameter	Mandatory	Type	Description
name	No	String	Storage types.
limit	No	Integer	The number of records on each page.
marker	No	String	Pagination marker.

Request Parameters

Table 4-21 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-22 Response body parameters

Parameter	Type	Description
storage_types	Array of StorageTypeOption objects	Storage type list.
page_info	PageInfo object	Pagination information.

Table 4-23 StorageTypeOption

Parameter	Type	Description
id	String	Storage type ID. The value is in UUID format.
name	String	The storage type for sale.
zone_code	String	Area code, which indicates that devices can be purchased and deployed in this area.
expand_capacity_step	Integer	Purchase increments. If the value is 0 , only the capacity in gears can be purchased.

Parameter	Type	Description
supported_capacities	Array of integers	Fixed purchase capacity. If this parameter is left blank, the capacity is purchased by purchase increment.

Table 4-24 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying storage types

```
GET https://{ies_endpoint}/v2/{domain_id}/storage-types
```

Example Response

Status code: 200

successful operation

```
{
  "storage_types": [ {
    "id": "00000000-0000-000-0000-000000000000",
    "name": "SAS",
    "zone_code": "CN",
    "expand_capacity_step": 20,
    "supported_capacities": [ 35, 70, 140 ]
  } ],
  "page_info": {
    "current_count": 1
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.3 Storage Pools

4.3.1 Querying Storage Pools

Function

This API is used to list storage pools.

URI

GET /v2/{domain_id}/storage-pools

Table 4-25 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-26 Query parameters

Parameter	Mandatory	Type	Description
edge_site_id	No	String	Edge site ID.
limit	No	Integer	The number of records on each page.
marker	No	String	Pagination marker.
status	No	Array of strings	The status specified for querying storage pools. Multiple values are supported for query.

Request Parameters

Table 4-27 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-28 Response body parameters

Parameter	Type	Description
storage_pools	Array of StoragePoolV2 objects	Storage pool list.
page_info	PageInfo object	Pagination information.

Table 4-29 StoragePoolV2

Parameter	Type	Description
id	String	Storage pool ID.
name	String	Storage pool name.
edge_site_id	String	Edge site ID.
storage_type	String	Storage type. Range - SAS: High I/O - SSD: Ultra-high I/O - SAS_SD: High I/O (software-defined) - SSD_SD: Ultra-high I/O (software-defined) - SAS_ARM: High I/O (Kunpeng) - SSD_ARM: Ultra-high I/O (Kunpeng) - VS_SMALL_CAP: Edge object storage (small-capacity) - VS_MEDIUM_CAP: Edge object storage (medium-capacity) - VS_LARGE_CAP: Edge object storage (large-capacity) - CBR_STANDARD_SMALL_CAP: Cloud Backup and Recovery (basic edition) (small-capacity) - CBR_STANDARD_MEDIUM_CAP: Cloud Backup and Recovery (basic edition) (medium-capacity) - CBR_STANDARD_LARGE_CAP: Cloud Backup and Recovery (basic edition) (large-capacity) - CBR_PROFESSIONAL_SMALL_CAP: Cloud Backup and Recovery (professional edition) (small-capacity) - CBR_PROFESSIONAL_MEDIUM_CAP: Cloud Backup and Recovery (professional edition) (medium-capacity) - CBR_PROFESSIONAL_LARGE_CAP: Cloud Backup and Recovery (professional edition) (large-capacity)
status	String	The storage pool status. Options: • CREATING: Creating • AVAILABLE: Available • EXPANDING: Expanding • PENDING_PAYMENT: Pending payment • FROZEN: Frozen

Parameter	Type	Description
assigned_size	Integer	Storage pool size. Purchased storage capacity.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
capacity	Integer	Total capacity.
market_options	MarketOptions object	Billing information.
created_at	String	Creation time.
updated_at	String	Update time.
parent_id	String	ID of the pre-generated storage pool in the capacity expansion scenario.

Table 4-30 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 4-31 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: Yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.
strategies	Array of Strategy objects	The list of sales strategies.

Table 4-32 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.

Parameter	Type	Description
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 4-33 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: Frozen
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Table 4-34 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying storage pools

```
GET https://{ies_endpoint}/v2/{domain_id}/storage-pools
```

Example Response

Status code: 200

successful operation

```
{
  "storage_pools": [ {
    "id": "d70a8f73-edef-4b71-beb3-7dbc22f0365e",
    "name": "SAS-ojoiv",
    "edge_site_id": "a4a36874-c41b-4295-9fd5-6823864fd564",
    "storage_type": "SAS",
    "status": "AVAILABLE",
    "assigned_size": 36,
    "product_info": {
      "cloud_service_type": "hws.service.type.ies",
      "resource_type": "hws.resource.type.iesvolume",
      "resource_spec_code": "ies.blockstorage.gear1"
    },
    "capacity": 144,
    "market_options": {
      "charge_mode": "prepaid",
      "prepaid_options": {
        "order_id": "CS2201181056V3SK6",
        "product_id": "OFFI644832402269233154",
        "pay_mode": "FULL"
      }
    }
  } ],
  "page_info": {
    "current_count": 1
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.3.2 Querying Details About a Storage Pool

Function

This API is used to query details about a storage pool.

URI

GET /v2/{domain_id}/storage-pools/{id}

Table 4-35 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
id	Yes	String	Storage pool ID.

Request Parameters

Table 4-36 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-37 Response body parameters

Parameter	Type	Description
storage_pool	StoragePoolV2 object	Storage pool.

Table 4-38 StoragePoolV2

Parameter	Type	Description
id	String	Storage pool ID.
name	String	Storage pool name.
edge_site_id	String	Edge site ID.

Parameter	Type	Description
storage_type	String	Storage type. Range - SAS: High I/O - SSD: Ultra-high I/O - SAS_SD: High I/O (software-defined) - SSD_SD: Ultra-high I/O (software-defined) - SAS_ARM: High I/O (Kunpeng) - SSD_ARM: Ultra-high I/O (Kunpeng) - VS_SMALL_CAP: Edge object storage (small-capacity) - VS_MEDIUM_CAP: Edge object storage (medium-capacity) - VS_LARGE_CAP: Edge object storage (large-capacity) - CBR_STANDARD_SMALL_CAP: Cloud Backup and Recovery (basic edition) (small-capacity) - CBR_STANDARD_MEDIUM_CAP: Cloud Backup and Recovery (basic edition) (medium-capacity) - CBR_STANDARD_LARGE_CAP: Cloud Backup and Recovery (basic edition) (large-capacity) - CBR_PROFESSIONAL_SMALL_CAP: Cloud Backup and Recovery (professional edition) (small-capacity) - CBR_PROFESSIONAL_MEDIUM_CAP: Cloud Backup and Recovery (professional edition) (medium-capacity) - CBR_PROFESSIONAL_LARGE_CAP: Cloud Backup and Recovery (professional edition) (large-capacity)
status	String	The storage pool status. Options: • CREATING: Creating • AVAILABLE: Available • EXPANDING: Expanding • PENDING_PAYMENT: Pending payment • FROZEN: Frozen
assigned_size	Integer	Storage pool size. Purchased storage capacity.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
capacity	Integer	Total capacity.
market_options	MarketOptions object	Billing information.
created_at	String	Creation time.
updated_at	String	Update time.
parent_id	String	ID of the storage pool associated with the pre-generated storage pool in the capacity expansion scenario.

Table 4-39 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 4-40 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: Yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.
strategies	Array of Strategy objects	The list of sales strategies.

Table 4-41 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 4-42 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: Frozen

Parameter	Type	Description
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Example Request

Querying details about a storage pool

```
GET https://{ies_endpoint}/v2/{domain_id}/storage-pools/{id}
```

Example Response

Status code: 200

successful operation

```
{
  "storage_pool": {
    "id": "d70a8f73-edef-4b71-beb3-7dbc22f0365e",
    "name": "SAS-ojoiv",
    "edge_site_id": "a4a36874-c41b-4295-9fd5-6823864fd564",
    "storage_type": "SAS",
    "status": "AVAILABLE",
    "assigned_size": 36,
    "product_info": {
      "cloud_service_type": "hws.service.type.ies",
      "resource_type": "hws.resource.type.iesvolume",
      "resource_spec_code": "ies.blockstorage.gear1"
    },
    "capacity": 144,
    "market_options": {
      "charge_mode": "prepaid",
      "prepaid_options": {
        "order_id": "CS2201181056V3SK6",
        "product_id": "OFFI644832402269233154",
        "pay_mode": "FULL"
      }
    }
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.4 Storage Billing Tiers

4.4.1 Querying Storage Billing Tiers

Function

This API returns only the supported storage billing tiers. You can specify the actual storage capacity.

URI

GET /v2/{domain_id}/storage-gears

Table 4-43 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-44 Query parameters

Parameter	Mandatory	Type	Description
zone_code	No	String	Area code.
pay_mode	No	Array of strings	Billing mode.
period_num	No	Array of integers	Purchase duration.
limit	No	Integer	The number of records on each page.
marker	No	String	Pagination marker.

Request Parameters

Table 4-45 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-46 Response body parameters

Parameter	Type	Description
storage_gears	Array of StorageGearV2 objects	List of supported storage tiers.
page_info	PageInfo object	Pagination information.

Table 4-47 StorageGearV2

Parameter	Type	Description
id	String	Storage tier ID.
gear	Integer	Storage tier, for example, 35 TB.
storage_type	String	Storage type (SAS: high I/O; SSD: ultra-high I/O).
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
zone_code	String	Deployment area.
sale_cycles	Array of SaleCycle objects	Objects of the sales cycle.

Table 4-48 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.

Parameter	Type	Description
resource_spec_code	String	Resource code.

Table 4-49 SaleCycle

Parameter	Type	Description
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront
period_type	String	Subscription period type. • year: Yearly
period_num	Integer	The number of subscription periods.

Table 4-50 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying storage billing tiers

GET https://{ies_endpoint}/v2/{domain_id}/storage-gears

Example Response

Status code: 200

successful operation

```
{
  "storage_gears" : [ {
    "id" : "00000000-0000-000-0000-000000000000",
    "gear" : 35,
    "storage_type" : "SAS",
    "product_info" : {
      "cloud_service_type" : "hws.service.type.ies",
      "resource_type" : "hws.resource.type.iesvolume",
      "resource_spec_code" : "ies.blockstorage.gear1"
    }
  }
]
```

```
},
"zone_code": "CN",
"sale_cycles": [ {
  "pay_mode": "FULL",
  "period_type": "year",
  "period_num": 3
} ]
},
"page_info": {
  "current_count": 1
}
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

Sales Cycles

4.5.1 Querying Available Sales Cycles

Function

This API is used to query available sales cycles.

URI

GET /v2/{domain_id}/sale-cycles

Table 4-51 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-52 Query parameters

Parameter	Mandatory	Type	Description
zone_code	No	String	Area code.

Request Parameters

Table 4-53 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-54 Response body parameters

Parameter	Type	Description
sale_cycles	Array of SaleCycleOption objects	Sales cycle information.

Table 4-55 SaleCycleOption

Parameter	Type	Description
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront
period_type	String	Subscription period type. • year: Yearly
period_num	Array of integers	Sales cycle value.

Example Request

Querying available sales cycles.

```
GET https://{ies_endpoint}/v2/{domain_id}/sale-cycles
```

Example Response

Status code: 200

successful operation

```
{  
  "sale_cycles" : [ {
```

```
"pay_mode" : "FULL",  
"period_type" : "year",  
"period_num" : [ 1, 3 ]  
}]  
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.6 Servers

4.6.1 Querying Servers

Function

This API is used to query servers.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:listServers`.

URI

GET /v2/{domain_id}/servers

Table 4-56 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-57 Query parameters

Parameter	Mandatory	Type	Description
edge_site_id	No	String	Edge site ID.
limit	No	Integer	The number of records on each page.
marker	No	String	Pagination marker.

Parameter	Mandatory	Type	Description
status	No	Array of strings	The server status specified for querying servers. Multiple values are supported for query.
id	No	Array of strings	The server ID specified for filtering servers. Multiple values can be used for query in the format of *id=xxx&id=xxx*.

Request Parameters

Table 4-58 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-59 Response body parameters

Parameter	Type	Description
servers	Array of Server objects	Server list.
page_info	PageInfo object	Pagination information.

Table 4-60 Server

Parameter	Type	Description
id	String	Resource ID.
domain_id	String	Account ID.
edge_site_id	String	Site ID.
name	String	Name.

Parameter	Type	Description
status	String	• PENDING_PAYMENT: Pending payment • DELIVERING: Delivering • USING: Using
offering_id	String	Offering ID.
spec	ServerResourceSpec object	Server resource specifications.
market_options	MarketOptions object	Billing information.
location	LayoutLocation object	Device location information.
created_at	String	Creation time.
updated_at	String	Update time.

Table 4-61 ServerResourceSpec

Parameter	Type	Description
id	String	Server flavor ID.
name	String	Server flavor name.
server_type	String	Server type. Options: COMPUTE : Computing servers NETWORK : Network servers BLOCK_STORAGE : Disk storage servers
flavor_type	String	Server resource flavor type.
performance_type	String	ECS flavor categories, for example, general computing, cloud desktop, and gateway.
power	Integer	Server power (W).
unit	Integer	Height of a device. U spaces.
vcpus	Integer	The number of available vCPU cores.
memory	Integer	Available memory (GB).
storage_capacity	Integer	Available storage capacity (TiB).
cpu_name	String	Name.
cpu_architecture	String	CPU architecture.

Table 4-62 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: Yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.
strategies	Array of Strategy objects	The list of sales strategies.

Table 4-63 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 4-64 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: Frozen
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.

Parameter	Type	Description
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Table 4-65 LayoutLocation

Parameter	Type	Description
rack_id	String	Rack ID.
start_index	Integer	Start U space.
unit	Integer	U spaces.

Table 4-66 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying servers

```
GET https://{ies_endpoint}/v2/{domain_id}/servers
```

Example Response

Status code: 200

successful operation

```
{
  "servers": [ {
    "id": "00000000-0000-000-0000-000000000000",
    "domain_id": "00000000000000000000000000000000",
    "edge_site_id": "00000000-0000-000-0000-000000000000",
    "name": "server01",
    "status": "USING",
    "offering_id": "00000000-0000-000-0000-000000000000",
    "spec": {
      "id": "00000000-0000-000-0000-000000000000",
      "name": "S7",
      "server_type": "COMPUTE",
      "flavor_type": null,
      "performance_type": "normal",
      "power": 10,
```

```
{
  "unit" : 3,
  "vcpus" : 100,
  "memory" : 500,
  "storage_capacity" : 3000,
  "cpu_name" : "",
  "cpu_architecture" : "X86"
},
"market_options" : {
  "charge_mode" : "prepaid",
  "prepaid_options" : {
    "order_id" : "CS2507010000LFU8W",
    "pay_mode" : "FULL"
  }
},
"created_at" : "2025-07-01T00:00:00.000000Z",
"updated_at" : "2025-07-01T01:00:00.000000Z"
},
"page_info" : {
  "current_count" : 1
}
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.6.2 Querying Details About a Server

Function

This API is used to query details about a server.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:getServer`.

URI

GET /v2/{domain_id}/servers/{server_id}

Table 4-67 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
server_id	Yes	String	Server ID.

Request Parameters

Table 4-68 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-69 Response body parameters

Parameter	Type	Description
server	Server object	Server details.

Table 4-70 Server

Parameter	Type	Description
id	String	Resource ID.
domain_id	String	Account ID.
edge_site_id	String	Site ID.
name	String	Name.
status	String	● PENDING_PAYMENT: Pending payment ● DELIVERING: Delivering ● USING: Using
offering_id	String	Offering ID.
spec	ServerResourceSpec object	Server resource specifications.
market_options	MarketOptions object	Billing information.
location	LayoutLocation object	Device location information.
created_at	String	Creation time.
updated_at	String	Update time.

Table 4-71 ServerResourceSpec

Parameter	Type	Description
id	String	Server flavor ID.
name	String	Server flavor name.
server_type	String	Server type. Options: COMPUTE : Computing servers NETWORK : Network servers BLOCK_STORAGE : Disk storage servers
flavor_type	String	Server resource flavor type.
performance_type	String	ECS flavor categories, for example, general computing, cloud desktop, and gateway.
power	Integer	Server power (W).
unit	Integer	Height of a device. U spaces.
vcpus	Integer	The number of available vCPU cores.
memory	Integer	Available memory (GB).
storage_capacity	Integer	Available storage capacity (TiB).
cpu_name	String	Name.
cpu_architecture	String	CPU architecture.

Table 4-72 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. prepaid: Yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.
strategies	Array of Strategy objects	The list of sales strategies.

Table 4-73 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.

Parameter	Type	Description
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 4-74 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: Frozen
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Table 4-75 LayoutLocation

Parameter	Type	Description
rack_id	String	Rack ID.
start_index	Integer	Start U space.
unit	Integer	U spaces.

Example Request

Querying details about a server.

```
GET https://{ies_endpoint}/v2/{domain_id}/servers/{server_id}
```

Example Response

Status code: 200

successful operation

```
{
  "server" : {
    "id" : "00000000-0000-000-0000-000000000000",
    "domain_id" : "00000000000000000000000000000000",
    "edge_site_id" : "00000000-0000-000-0000-000000000000",
    "name" : "server01",
    "status" : "USING",
    "offering_id" : "00000000-0000-000-0000-000000000000",
    "spec" : {
      "id" : "00000000-0000-000-0000-000000000000",
      "name" : "S7",
      "server_type" : "COMPUTE",
      "flavor_type" : null,
      "performance_type" : "normal",
      "power" : 10,
      "unit" : 3,
      "vcpus" : 100,
      "memory" : 500,
      "storage_capacity" : 3000,
      "cpu_name" : "",
      "cpu_architecture" : "X86"
    },
    "market_options" : {
      "charge_mode" : "prepaid",
      "prepaid_options" : {
        "order_id" : "CS2507010000LFU8W",
        "pay_mode" : "FULL"
      }
    }
  },
  "created_at" : "2025-07-01T00:00:00.000000Z",
  "updated_at" : "2025-07-01T01:00:00.000000Z"
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.7 Network Devices

4.7.1 Querying Network Devices

Function

This API is used to query network devices.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:listNetworkDevices`.

URI

GET `/v2/{domain_id}/network-devices`

Table 4-76 URI parameter

Parameter	Mandatory	Type	Description
<code>domain_id</code>	Yes	String	Account ID in the URI.

Table 4-77 Query parameters

Parameter	Mandatory	Type	Description
<code>edge_site_id</code>	No	String	Edge site ID.
<code>limit</code>	No	Integer	The number of records on each page.
<code>marker</code>	No	String	Pagination marker.
<code>status</code>	No	Array of strings	The status specified for querying network devices. Multiple values are supported for query.
<code>id</code>	No	Array of strings	The server ID specified for filtering servers. Multiple values can be used for query in the format of <code>*id=xxx&id=xxx*</code> .

Request Parameters

Table 4-78 Request header parameter

Parameter	Mandatory	Type	Description
<code>X-Auth-Token</code>	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-79 Response body parameters

Parameter	Type	Description
network_devices	Array of NetworkDevice objects	Network device list.
page_info	PageInfo object	Pagination information.

Table 4-80 NetworkDevice

Parameter	Type	Description
id	String	Network device resource ID.
domain_id	String	Account ID.
edge_site_id	String	Site ID.
name	String	Name.
status	String	• PENDING_PAYMENT: Pending payment • DELIVERING: Delivering • USING: Using
offering_id	String	Offering ID.
spec	NetworkDeviceSpec object	Network device specifications.
market_options	MarketOptions object	Billing information.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
location	LayoutLocation object	Device location information.
created_at	String	Creation time.
updated_at	String	Update time.

Table 4-81 NetworkDeviceSpec

Parameter	Type	Description
id	String	Network device specification ID.
name	String	Network device specification name.
power	Integer	Device power (W).

Parameter	Type	Description
unit	Integer	Height of a device. U spaces.
performance_type	String	Usage.

Table 4-82 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: Yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.
strategies	Array of Strategy objects	The list of sales strategies.

Table 4-83 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 4-84 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: Frozen

Parameter	Type	Description
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Table 4-85 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 4-86 LayoutLocation

Parameter	Type	Description
rack_id	String	Rack ID.
start_index	Integer	Start U space.
unit	Integer	U spaces.

Table 4-87 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying network devices.

```
GET https://{ies_endpoint}/v2/{domain_id}/network-devices
```

Example Response

Status code: 200

successful operation

```
{
  "network_devices": [ {
    "id": "00000000-0000-000-0000-000000000000",
    "domain_id": "00000000000000000000000000000000",
    "edge_site_id": "00000000-0000-000-0000-000000000000",
    "name": "network01",
    "status": "USING",
    "offering_id": "00000000-0000-000-0000-000000000000",
    "spec": {
      "id": "00000000-0000-000-0000-000000000000",
      "name": "network_device01",
      "performance_type": "normal",
      "power": 10,
      "unit": 3
    },
    "market_options": {
      "charge_mode": "prepaid",
      "prepaid_options": {
        "order_id": "CS2507010000LFU8W",
        "pay_mode": "FULL"
      }
    }
  },
  "product_info": {
    "cloud_service_type": "hws.service.type.ies",
    "resource_type": "hws.resource.type.iesserver",
    "resource_spec_code": "ies.cbu.testnetwork"
  },
  "created_at": "2025-07-01T00:00:00.000000Z",
  "updated_at": "2025-07-01T01:00:00.000000Z"
}],
  "page_info": {
    "current_count": 1
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.7.2 Querying Details About a Network Device

Function

This API is used to query details about a network device.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:getNetworkDevice`.

URI

GET `/v2/{domain_id}/network-devices/{network_device_id}`

Table 4-88 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
network_device_id	Yes	String	Network device ID.

Request Parameters

Table 4-89 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-90 Response body parameters

Parameter	Type	Description
network_device	NetworkDevice object	Network device details.

Table 4-91 NetworkDevice

Parameter	Type	Description
id	String	Network device resource ID.
domain_id	String	Account ID.

Parameter	Type	Description
edge_site_id	String	Site ID.
name	String	Name.
status	String	• PENDING_PAYMENT: Pending payment • DELIVERING: Delivering • USING: Using
offering_id	String	Offering ID.
spec	NetworkDeviceSpec object	Network device specifications.
market_options	MarketOptions object	Billing information.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
location	LayoutLocation object	Device location information.
created_at	String	Creation time.
updated_at	String	Update time.

Table 4-92 NetworkDeviceSpec

Parameter	Type	Description
id	String	Network device specification ID.
name	String	Network device specification name.
power	Integer	Device power (W).
unit	Integer	Height of a device. U spaces.
performance_type	String	Usage.

Table 4-93 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: Yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.

Parameter	Type	Description
strategies	Array of Strategy objects	The list of sales strategies.

Table 4-94 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 4-95 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: Frozen
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Table 4-96 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 4-97 LayoutLocation

Parameter	Type	Description
rack_id	String	Rack ID.
start_index	Integer	Start U space.
unit	Integer	U spaces.

Example Request

Querying details about a network device.

```
GET https://{ies_endpoint}/v2/{domain_id}/network-devices/{network_device_id}
```

Example Response

Status code: 200

successful operation

```
{
  "network_device" : {
    "id" : "00000000-0000-000-0000-000000000000",
    "domain_id" : "00000000000000000000000000000000",
    "edge_site_id" : "00000000-0000-000-0000-000000000000",
    "name" : "network01",
    "status" : "USING",
    "offering_id" : "00000000-0000-000-0000-000000000000",
    "spec" : {
      "id" : "00000000-0000-000-0000-000000000000",
      "name" : "network_device01",
      "performance_type" : "normal",
      "power" : 10,
      "unit" : 3
    },
  },
  "market_options" : {
    "charge_mode" : "prepaid",
    "prepaid_options" : {
      "order_id" : "CS2507010000LFU8W",
      "pay_mode" : "FULL"
    }
  },
  "product_info" : {
    "cloud_service_type" : "hws.service.type.ies",
    "resource_type" : "hws.resource.type.iesserver",
    "resource_spec_code" : "ies.cbu.testnetwork"
  }
}
```

```
},
"created_at" : "2025-07-01T00:00:00.000000Z",
"updated_at" : "2025-07-01T01:00:00.000000Z"
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.8 Edge Sites

4.8.1 Registering an Edge Site

Function

This API is used to register an edge site.

- An edge site is associated with a Huawei Cloud region.
- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:create`.

URI

POST `/v1/{domain_id}/edge-sites`

Table 4-98 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Request Parameters

Table 4-99 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Table 4-100 Request body parameter

Parameter	Mandatory	Type	Description
edge_site	Yes	CreateEdgeSite object	Edge site parameters.

Table 4-101 CreateEdgeSite

Parameter	Mandatory	Type	Description
name	Yes	String	Edge site name. Maximum Length: 64 bytes. Only letters (a-z and A-Z), digits (0-9), underscores (_), and hyphens (-) are allowed.
region_id	Yes	String	ID of the region that the edge site is associated with. Maximum length: 64 bytes. Only letters (a-z and A-Z), digits (0-9), underscores (_), and hyphens (-) are allowed.
project_id	No	String	ID of the project that the edge site belongs to.
description	No	String	Edge site description. The description can contain a maximum of 255 bytes and cannot contain angle brackets (<>).
location	Yes	CreateLocation object	Location information.
enterprise_project_id	No	String	Enterprise project ID.

Table 4-102 CreateLocation

Parameter	Mandatory	Type	Description
name	No	String	Location name (discarded). This parameter will not be stored persistently and will not be returned for new sites.
address	No	String	Province or state of the location.

Parameter	Mandatory	Type	Description
zone_code	No	String	Area where the location is located.
condition	Yes	Condition object	Location conditions.
description	No	String	Location description. The description can contain a maximum of 255 bytes and cannot contain angle brackets (<>).

Table 4-103 Condition

Parameter	Mandatory	Type	Description
environment	No	Integer	Equipment room environment. Options: • 0: None • 1: This is a modular data center. • 2: The data center has earned national or industry-level certifications.
space	No	Integer	Rack space. Options: • 0: There is no space available. • 1: There is room for more than three racks. • 2: There is room for up to three racks.

Parameter	Mandatory	Type	Description
transport	No	Integer	Rack transportation conditions. Options: • 0: The height or width of the transportation passages or doors in the equipment room does not meet requirements. • 1: The passages, freight elevators, or doors in the equipment room allow racks to be transported on their rollers. • 2: The passages, freight elevators, or doors in the equipment room do not allow racks to be transported on their rollers. There are steps along the way.
installation	No	String	Rack installation. Options: • UNCLEAR: Unknown • UNSUPPORT: Devices need to be installed in existing racks. • SUPPORT: New racks can be added to a rack group.

Response Parameters

Status code: 200

Table 4-104 Response body parameter

Parameter	Type	Description
edge_site	EdgeSiteDetail object	Edge site details.

Table 4-105 EdgeSiteDetail

Parameter	Type	Description
id	String	Edge site ID.
domain_id	String	ID of the account that the edge site belongs to.
name	String	Edge site name.
description	String	Edge site description.
region_id	String	ID of the region to which the edge site belongs.
project_id	String	ID of the project that the edge site belongs to.
availability_zone_id	String	AZ ID of the edge site.
status	String	Edge site deployment status. Range - initial : To be deployed - deploying : Deploying - available : Available - unavailable : Unavailable
location	LocationDetail object	Location details.
enterprise_project_id	String	ID of the enterprise project that the edge site belongs to.
created_at	String	Time when an edge site was registered.
updated_at	String	Time when an edge site was updated.

Table 4-106 LocationDetail

Parameter	Type	Description
name	String	Location name (discarded). This parameter is invalid even if it is transferred and will not be returned for new sites.
description	String	Location description.
zone_code	String	Area where the location is located.
address	String	Deployment location.
condition	Condition object	Location conditions.

Table 4-107 Condition

Parameter	Type	Description
environment	Integer	Equipment room environment. Options: • 0: None • 1: This is a modular data center. • 2: The data center has earned national or industry-level certifications.
space	Integer	Rack space. Options: • 0: There is no space available. • 1: There is room for more than three racks. • 2: There is room for up to three racks.
transport	Integer	Rack transportation conditions. Options: • 0: The height or width of the transportation passages or doors in the equipment room does not meet requirements. • 1: The passages, freight elevators, or doors in the equipment room allow racks to be transported on their rollers. • 2: The passages, freight elevators, or doors in the equipment room do not allow racks to be transported on their rollers. There are steps along the way.
installation	String	Rack installation. Options: • UNCLEAR: Unknown • UNSUPPORT: Devices need to be installed in existing racks. • SUPPORT: New racks can be added to a rack group.

Example Request

Example request for creating an edge site in cn-north-4 (Beijing 4) in Yaohai District in Hefei, Anhui, China. It is uncertain whether the equipment room meets

requirements. Rack expansion is not planned. The height or width of the transportation passages and equipment room doors does not meet requirements. New racks can be added to an existing rack group.

POST https://{ies_endpoint}/v1/{domain_id}/edge-sites

```
{
  "edge_site" : {
    "name" : "Test site",
    "description" : "The test site is located in Anhui.",
    "region_id" : "cn-north-4",
    "location" : {
      "description" : "Location of the test site",
      "zone_code" : "CN",
      "address" : "Yaohai District in Hefei, Anhui",
      "country" : "CN",
      "province" : "Anhui",
      "city" : "Hefei",
      "district" : "Yaohai District",
      "condition" : {
        "environment" : 0,
        "space" : 0,
        "transport" : 0
      }
    }
  }
}
```

Example Response

Status code: 200

successful operation

```
{
  "edge_site" : {
    "id" : "cc89b1e5-521d-4a85-be83-e6f7217fc63e",
    "domain_id" : "2b76febbe5d34eac85d26435c1f15809",
    "name" : "Test site",
    "description" : "The test site is located in Anhui.",
    "region_id" : "cn-north-4",
    "project_id" : "060576838600d5762f2dc000470eb164",
    "availability_zone_id" : null,
    "enterprise_project_id" : "0",
    "status" : "initial",
    "location" : {
      "description" : "Location of the test site",
      "zone_code" : "CN",
      "address" : "Yaohai District in Hefei, Anhui",
      "country" : "CN",
      "province" : "Anhui",
      "city" : "Hefei",
      "district" : "Yaohai District",
      "condition" : {
        "environment" : 0,
        "space" : 0,
        "transport" : 0,
        "installation" : "SUPPORT"
      }
    }
  },
  "created_at" : "2022-04-15T07:59:20.641Z",
  "updated_at" : null
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.8.2 Listing Edge Sites

Function

This API is used to list edge sites.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:list`.

URI

GET `/v1/{domain_id}/edge-sites`

Table 4-108 URI parameter

Parameter	Mandatory	Type	Description
<code>domain_id</code>	Yes	String	Account ID in the URI.

Table 4-109 Query parameters

Parameter	Mandatory	Type	Description
<code>limit</code>	No	Integer	The number of records on each page.
<code>marker</code>	No	String	Pagination marker.
<code>sort_key</code>	No	Array of strings	Field for sorting.
<code>sort_dir</code>	No	Array of strings	Sorting order. Options: desc: descending order asc: ascending order

Parameter	Mandatory	Type	Description
enterprise_project_id	No	Array of strings	Enterprise project ID. This parameter can be used to filter edge sites of an enterprise project. The value is 0 or a string that contains a maximum of 36 bytes in UUID format with hyphens (-). Value 0 indicates the default enterprise project. To obtain edge sites of all enterprise projects, set this parameter to all_granted_eps . If the parameter is not set, all edge sites are queried.
id	No	Array of strings	The edge site ID used for query. Sorting is supported.
name	No	Array of strings	The edge site name used for query (exact match). Sorting is supported.
availability_zone_id	No	Array of strings	Edge AZ ID used for query.
status	No	Array of strings	Edge site deployment status used for query. Range - initial : To be deployed - deploying : Deploying - available : Available - unavailable : Unavailable

Request Parameters

Table 4-110 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-111 Response body parameters

Parameter	Type	Description
edge_sites	Array of EdgeSiteDetail objects	Edge site list.
page_info	PageInfo object	Pagination information.

Table 4-112 EdgeSiteDetail

Parameter	Type	Description
id	String	Edge site ID.
domain_id	String	ID of the account that the edge site belongs to.
name	String	Edge site name.
description	String	Edge site description.
region_id	String	ID of the region to which the edge site belongs.
project_id	String	ID of the project that the edge site belongs to.
availability_zone_id	String	AZ ID of the edge site.
status	String	Edge site deployment status. Range - initial : To be deployed - deploying : Deploying - available : Available - unavailable : Unavailable
location	LocationDetail object	Location details.
enterprise_project_id	String	ID of the enterprise project that the edge site belongs to.
created_at	String	Time when an edge site was registered.
updated_at	String	Time when an edge site was updated.

Table 4-113 LocationDetail

Parameter	Type	Description
name	String	Location name (discarded). This parameter is invalid even if it is transferred and will not be returned for new sites.
description	String	Location description.
zone_code	String	Area where the location is located.
address	String	Deployment location.
condition	Condition object	Location conditions.

Table 4-114 Condition

Parameter	Type	Description
environment	Integer	Equipment room environment. Options: • 0: None • 1: This is a modular data center. • 2: The data center has earned national or industry-level certifications.
space	Integer	Rack space. Options: • 0: There is no space available. • 1: There is room for more than three racks. • 2: There is room for up to three racks.

Parameter	Type	Description
transport	Integer	Rack transportation conditions. Options: • 0: The height or width of the transportation passages or doors in the equipment room does not meet requirements. • 1: The passages, freight elevators, or doors in the equipment room allow racks to be transported on their rollers. • 2: The passages, freight elevators, or doors in the equipment room do not allow racks to be transported on their rollers. There are steps along the way.
installation	String	Rack installation. Options: • UNCLEAR: Unknown • UNSUPPORT: Devices need to be installed in existing racks. • SUPPORT: New racks can be added to a rack group.

Table 4-115 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Listing edge sites

```
GET https://{ies_endpoint}/v1/{domain_id}/edge-sites?id=cc89b1e5-521d-4a85-be83-e6f7217fc63e
```

Example Response

Status code: 200

successful operation

```
{  
  "edge_sites" : [ {  
    "id" : "cc89b1e5-521d-4a85-be83-e6f7217fc63e",
```

```
{
  "domain_id" : "2b76febbe5d34eac85d26435c1f15809",
  "name" : "Test site",
  "description" : "The test site is located in Anhui.",
  "region_id" : "cn-north-4",
  "project_id" : "060576838600d5762f2dc000470eb164",
  "availability_zone_id" : null,
  "status" : "initial",
  "location" : {
    "description" : "Location information",
    "zone_code" : "CN",
    "address" : "Yaohai District in Hefei, Anhui",
    "country" : "CN",
    "province" : "Anhui",
    "city" : "Hefei",
    "district" : "Yaohai District",
    "condition" : {
      "environment" : 0,
      "space" : 0,
      "transport" : 0,
      "installation" : "SUPPORT"
    }
  },
  "enterprise_project_id" : "06fb8917-442d-4d4d-bcdb-79eb3e7b7b5d",
  "created_at" : "2022-04-15T07:59:20.641Z",
  "updated_at" : null
},
{
  "page_info" : {
    "current_count" : 1
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.8.3 Updating an Edge Site

Function

This API is used to update an edge site.

- Only the edge site description and location information can be updated.
- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:update`.

URI

PUT /v1/{domain_id}/edge-sites/{site_id}

Table 4-116 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
site_id	Yes	String	Edge site ID.

Request Parameters

Table 4-117 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Table 4-118 Request body parameter

Parameter	Mandatory	Type	Description
edge_site	Yes	UpdateEdgeSite object	Edge site information to be updated.

Table 4-119 UpdateEdgeSite

Parameter	Mandatory	Type	Description
description	No	String	Site description. The description can contain a maximum of 255 bytes and cannot contain angle brackets (<>).
location	No	UpdateLocation object	Location information.

Table 4-120 UpdateLocation

Parameter	Mandatory	Type	Description
name	No	String	Location name (discarded). This parameter is invalid even if it is transferred and will not be returned for new sites.
condition	No	UpdateCondition object	Location conditions.

Parameter	Mandatory	Type	Description
description	No	String	Location description. The description can contain a maximum of 255 bytes and cannot contain angle brackets (<>).

Table 4-121 UpdateCondition

Parameter	Mandatory	Type	Description
environment	No	Integer	Equipment room environment. Options: • 0: None • 1: This is a modular data center. • 2: The data center has earned national or industry-level certifications.
space	No	Integer	Rack space. • 0: There is no space available. • 1: There is room for more than three racks. • 2: There is room for up to three racks.

Parameter	Mandatory	Type	Description
transport	No	Integer	Rack transportation conditions. Options: • 0: The height or width of the transportation passages or doors in the equipment room does not meet requirements. • 1: The passages, freight elevators, or doors in the equipment room allow racks to be transported on their rollers. • 2: The passages, freight elevators, or doors in the equipment room do not allow racks to be transported on their rollers. There are steps along the way.
installation	No	String	Rack installation. Options: • UNCLEAR: Unknown • UNSUPPORT: Devices need to be installed in existing racks. • SUPPORT: New racks can be added to a rack group.

Response Parameters

Status code: 200

Table 4-122 Response body parameters

Parameter	Type	Description
edge_site	EdgeSiteDetail object	Edge site details.

Table 4-123 EdgeSiteDetail

Parameter	Type	Description
id	String	Edge site ID.
domain_id	String	ID of the account that the edge site belongs to.
name	String	Edge site name.
description	String	Edge site description.
region_id	String	ID of the region to which the edge site belongs.
project_id	String	ID of the project that the edge site belongs to.
availability_zone_id	String	AZ ID of the edge site.
status	String	Edge site deployment status. Range - initial : To be deployed - deploying : Deploying - available : Available - unavailable : Unavailable
location	LocationDetail object	Location details.
enterprise_project_id	String	ID of the enterprise project that the edge site belongs to.
created_at	String	Time when an edge site was registered.
updated_at	String	Time when an edge site was updated.

Table 4-124 LocationDetail

Parameter	Type	Description
name	String	Location name (discarded). This parameter is invalid even if it is transferred and will not be returned for new sites.
description	String	Location description.
zone_code	String	Area where the location is located.
address	String	Deployment location.
condition	Condition object	Location conditions.

Table 4-125 Condition

Parameter	Type	Description
environment	Integer	Equipment room environment. Options: • 0: None • 1: This is a modular data center. • 2: The data center has earned national or industry-level certifications.
space	Integer	Rack space. Options: • 0: There is no space available. • 1: There is room for more than three racks. • 2: There is room for up to three racks.
transport	Integer	Rack transportation conditions. Options: • 0: The height or width of the transportation passages or doors in the equipment room does not meet requirements. • 1: The passages, freight elevators, or doors in the equipment room allow racks to be transported on their rollers. • 2: The passages, freight elevators, or doors in the equipment room do not allow racks to be transported on their rollers. There are steps along the way.
installation	String	Rack installation. Options: • UNCLEAR: Unknown • UNSUPPORT: Devices need to be installed in existing racks. • SUPPORT: New racks can be added to a rack group.

Example Request

- Example request for updating an edge site in Yaohai District in Hefei, Anhui, China. It is uncertain whether the equipment room meets requirements. Rack

expansion is not planned. The height or width of the transportation passages and equipment room doors does not meet requirements. New racks can be added to an existing rack group.

PUT https://{ies_endpoint}/v1/{domain_id}/edge-sites/{site_id}

```
{
  "edge_site": {
    "description": "The test site is located in Anhui.",
    "location": {
      "description": "Location information",
      "country": "CN",
      "province": "Anhui",
      "city": "Hefei",
      "district": "Yaohai District",
      "condition": {
        "environment": 0,
        "space": 0,
        "transport": 0,
        "installation": "SUPPORT"
      }
    }
  }
}
```

- Updating an edge site

PUT https://{ies_endpoint}/v1/{domain_id}/edge-sites/{site_id}

```
{
  "edge_site": {
    "description": "Updating an edge site",
    "location": {
      "description": "Location information",
      "condition": {
        "environment": 0,
        "space": 0,
        "transport": 0,
        "installation": "SUPPORT"
      }
    }
  }
}
```

Example Response

Status code: 200

successful operation

```
{
  "edge_site": {
    "id": "cc89b1e5-521d-4a85-be83-e6f7217fc63e",
    "domain_id": "2b76febbe5d34eac85d26435c1f15809",
    "name": "Test site",
    "description": "The test site is located in Anhui.",
    "region_id": "cn-north-4",
    "project_id": "060576838600d5762f2dc000470eb164",
    "availability_zone_id": null,
    "status": "initial",
    "location": {
      "description": "Location information",
      "zone_code": "CN",
      "address": "Yaohai District in Hefei, Anhui",
      "country": "CN",
      "province": "Anhui",
      "city": "Hefei",
      "district": "Yaohai District",
      "condition": {
```

```
{
  "environment" : 0,
  "space" : 0,
  "transport" : 0,
  "installation" : "SUPPORT"
},
{
  "enterprise_project_id" : "06fb8917-442d-4d4d-bcdb-79eb3e7b7b5d",
  "created_at" : "2022-04-15T07:59:20.641Z",
  "updated_at" : "2022-04-15T08:59:20.641Z"
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.8.4 Querying Details About an Edge Site

Function

This API is used to query details about an edge site.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:get`.

URI

GET /v1/{domain_id}/edge-sites/{site_id}

Table 4-126 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
site_id	Yes	String	Edge site ID.

Request Parameters

Table 4-127 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-128 Response body parameters

Parameter	Type	Description
edge_site	EdgeSiteDetail object	Edge site details.

Table 4-129 EdgeSiteDetail

Parameter	Type	Description
id	String	Edge site ID.
domain_id	String	ID of the account that the edge site belongs to.
name	String	Edge site name.
description	String	Edge site description.
region_id	String	ID of the region to which the edge site belongs.
project_id	String	ID of the project that the edge site belongs to.
availability_zone_id	String	AZ ID of the edge site.
status	String	Edge site deployment status. Range - initial : To be deployed - deploying : Deploying - available : Available - unavailable : Unavailable
location	LocationDetail object	Location details.
enterprise_project_id	String	ID of the enterprise project that the edge site belongs to.
created_at	String	Time when an edge site was registered.
updated_at	String	Time when an edge site was updated.

Table 4-130 LocationDetail

Parameter	Type	Description
name	String	Location name (discarded). This parameter is invalid even if it is transferred and will not be returned for new sites.
description	String	Location description.
zone_code	String	Area where the location is located.
address	String	Deployment location.
condition	Condition object	Location conditions.

Table 4-131 Condition

Parameter	Type	Description
environment	Integer	Equipment room environment. Options: • 0: None • 1: This is a modular data center. • 2: The data center has earned national or industry-level certifications.
space	Integer	Rack space. Options: • 0: There is no space available. • 1: There is room for more than three racks. • 2: There is room for up to three racks.

Parameter	Type	Description
transport	Integer	Rack transportation conditions. Options: • 0: The height or width of the transportation passages or doors in the equipment room does not meet requirements. • 1: The passages, freight elevators, or doors in the equipment room allow racks to be transported on their rollers. • 2: The passages, freight elevators, or doors in the equipment room do not allow racks to be transported on their rollers. There are steps along the way.
installation	String	Rack installation. Options: • UNCLEAR: Unknown • UNSUPPORT: Devices need to be installed in existing racks. • SUPPORT: New racks can be added to a rack group.

Example Request

Querying details about an edge site

```
GET https://{ies_endpoint}/v1/{domain_id}/edge-sites/{site_id}
```

Example Response

Status code: 200

successful operation

```
{
  "edge_site" : {
    "id" : "cc89b1e5-521d-4a85-be83-e6f7217fc63e",
    "domain_id" : "2b76febbe5d34eac85d26435c1f15809",
    "name" : "Test site",
    "description" : "The test site is located in Anhui.",
    "region_id" : "cn-north-4",
    "project_id" : "060576838600d5762f2dc000470eb164",
    "availability_zone_id" : null,
    "status" : "initial",
    "location" : {
      "description" : "Location information",
      "zone_code" : "CN",
      "address" : "Nanshan District in Shenzhen, Guangdong",
      "country" : "CN",
      "province" : "Guangdong",
```

```
{
  "city" : "Shenzhen",
  "district" : "Nanshan District",
  "condition" : {
    "environment" : 0,
    "space" : 0,
    "transport" : 0,
    "installation" : "SUPPORT"
  },
  "enterprise_project_id" : "06fb8917-442d-4d4d-bcdb-79eb3e7b7b5d",
  "created_at" : "2022-04-15T07:59:20.641Z",
  "updated_at" : null
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.8.5 Deleting an Edge Site

Function

This API is used to delete an edge site.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:delete`.

URI

DELETE /v1/{domain_id}/edge-sites/{site_id}

Table 4-132 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
site_id	Yes	String	Edge site ID.

Request Parameters

Table 4-133 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

successful operation

None

Example Request

Deleting an edge site

```
DELETE https://{ies_endpoint}/v1/{domain_id}/edge-sites/{site_id}
```

Example Response

None

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.9 Quotas

4.9.1 Querying Resource Quotas

Function

This API is used to query resource quotas.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:quota:list`.

URI

GET /v1/{domain_id}/quotas

Table 4-134 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Request Parameters

Table 4-135 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-136 Response body parameters

Parameter	Type	Description
quotas	QuotaResources object	Resource quota details.

Table 4-137 QuotaResources

Parameter	Type	Description
resources	Array of QuotaDetail objects	Resource quota list.

Table 4-138 QuotaDetail

Parameter	Type	Description
type	String	Resource type. Options: • edge_site: edge site • compute_device: compute device

Parameter	Type	Description
quota	Integer	Total resource quota. The default quota is 10 , which can be modified.
used	Integer	Number of created resources. Value range: 0 to the value of quota .

Example Request

Querying resource quotas

```
GET https://{ies_endpoint}/v1/{domain_id}/quotas
```

Example Response

Status code: 200

successful operation

```
{
  "quotas": {
    "resources": [ {
      "type": "edge_site",
      "quota": 10,
      "used": 7
    } ]
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.10 Regions

4.10.1 Listing Regions Where CloudPond Is Available

Function

This API is used to list the regions where CloudPond has been launched.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:region:list`.

URI

GET `/v1/{domain_id}/regions`

Table 4-139 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-140 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	The number of records on each page.
marker	No	String	Pagination marker.
sort_key	No	Array of strings	Field for sorting.
sort_dir	No	Array of strings	Sorting order. Options: • desc: descending order • asc: ascending order

Request Parameters

Table 4-141 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.
X-Language	No	String	Language of the information returned by the API. The default value is zh-cn .

Response Parameters

Status code: 200

Table 4-142 Response body parameters

Parameter	Type	Description
regions	Array of RegionDetail objects	Region list.
page_info	PageInfo object	Pagination information.

Table 4-143 RegionDetail

Parameter	Type	Description
region_id	String	The region ID.
display_name	String	The region name.

Table 4-144 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Listing regions where CloudPond is available

```
GET https://{ies_endpoint}/v1/{domain_id}/regions
```

Example Response

Status code: 200

successful operation

```
{
  "regions": [ {
    "region_id": "cn-south-1",
    "display_name": "CN South-Guangzhou"
  } ],
  "page_info": {
    "current_count": 1
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.11 Areas

4.11.1 Querying Areas Where CloudPond Is Available

Function

This API is used to list the areas where CloudPond is available.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:zone:list`.

URI

GET `/v1/{domain_id}/zones`

Table 4-145 URI parameter

Parameter	Mandatory	Type	Description
<code>domain_id</code>	Yes	String	Account ID in the URI.

Table 4-146 Query parameters

Parameter	Mandatory	Type	Description
<code>limit</code>	No	Integer	The number of records on each page.
<code>marker</code>	No	String	Pagination marker.
<code>sort_key</code>	No	Array of strings	Field for sorting.
<code>sort_dir</code>	No	Array of strings	Sorting order. Options: desc: descending order asc: ascending order

Request Parameters

Table 4-147 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.
X-Language	No	String	Language of the information returned by the API. The default value is zh-cn .

Response Parameters

Status code: 200

Table 4-148 Response body parameters

Parameter	Type	Description
zones	Array of ZoneDetail objects	Area list.
page_info	PageInfo object	Pagination information.

Table 4-149 ZoneDetail

Parameter	Type	Description
code	String	Area code, for example, CN. The value is case-insensitive and is centrally converted to uppercase letters.
name	String	Area name.

Table 4-150 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying areas where CloudPond is available

GET https://{ies_endpoint}/v1/{domain_id}/zones

Example Response

Status code: 200

successful operation

```
{
  "zones" : [ {
    "name" : "China",
    "code" : "CN"
  } ],
  "page_info" : {
    "current_count" : 1
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.12 Edge Site Monitoring

4.12.1 Viewing Resource Capacity at an Edge Site

Function

This API is used to view resource capacity at an edge site.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:edgeSite:getMetricData`.

URI

GET /v1/{domain_id}/edge-sites/{site_id}/metric-data

Table 4-151 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
site_id	Yes	String	Edge site ID.

Table 4-152 Query parameters

Parameter	Mandatory	Type	Description
dim	No	String	Dimension for query. • site_id: site ID for querying compute and storage resource capacity • flavor: flavor for querying the compute resource usage • storage: storage type for querying the storage resource usage • flavor_capacity: flavor capacity for querying the predicted number of available instances of each flavor • storage_pool: storage pool for querying the usage of each storage pool at a site

Request Parameters

Table 4-153 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-154 Response body parameters

Parameter	Type	Description
metric_data	Array of MetricDataDetail objects	Monitoring data.

Table 4-155 MetricDataDetail

Parameter	Type	Description
name	String	Monitoring metric name. Options: • cpu_used: the number of used vCPU cores queried by site ID or flavor • cpu_available_total: the total number of available vCPU cores queried by site ID or flavor. • cpu_total: the total number of vCPU cores (including the cores reserved for HA) queried by site ID or flavor • memory_used: the used memory queried by site ID or flavor. The unit is GB. • memory_available_total: the total available memory queried by site ID or flavor. The unit is GB. • memory_total: the total memory (including the memory reserved for HA) queried by site ID or flavor. The unit is GB. • capacity_used: the used block storage queried by site ID or storage type. The unit is GiB. • capacity_available_total: the available total block storage (storage subscribed by users) queried by site ID or storage type. The unit is GiB. • capacity_total: the maximum block storage subscribed (it may be greater than the enabled storage) queried by site ID or storage type. The unit is GiB. • available: the number of remaining available instances of the flavor queried by flavor capacity.
value	Long	Metic value.
read_at	String	Time when the record was last modified.
dimension	dimension object	Dimension information.

Table 4-156 dimension

Parameter	Type	Description
name	String	Dimension name.
value	String	Dimension value.

Example Request

Querying capacity information about an edge site

```
GET https://{ies_endpoint}/v1/{domain_id}/edge-sites/{site_id}/metric-data?dim=site_id
```

Example Response

Status code: 200

successful operation

```
{
  "metric_data": [ {
    "name": "cpu_used",
    "value": 136,
    "read_at": "2022-04-28T08:15:00.428Z",
    "dimension": {
      "name": "site_id",
      "value": "7db2702e-4d18-478f-856b-11cbcf5f1dbc"
    }
  }, {
    "name": "cpu_total",
    "value": 184,
    "read_at": "2022-04-28T08:15:00.428Z",
    "dimension": {
      "name": "site_id",
      "value": "7db2702e-4d18-478f-856b-11cbcf5f1dbc"
    }
  }, {
    "name": "memory_used",
    "value": 272,
    "read_at": "2022-04-28T08:15:00.428Z",
    "dimension": {
      "name": "site_id",
      "value": "7db2702e-4d18-478f-856b-11cbcf5f1dbc"
    }
  }, {
    "name": "memory_total",
    "value": 648,
    "read_at": "2022-04-28T08:15:00.428Z",
    "dimension": {
      "name": "site_id",
      "value": "7db2702e-4d18-478f-856b-11cbcf5f1dbc"
    }
  }, {
    "name": "capacity_used",
    "value": 5707,
    "read_at": "2022-04-28T08:15:00.501Z",
    "dimension": {
      "name": "site_id",
      "value": "7db2702e-4d18-478f-856b-11cbcf5f1dbc"
    }
  }, {
    "name": "capacity_total",
    "value": 113090,
```

```
"read_at" : "2022-04-28T08:15:00.501Z",
"dimension" : {
  "name" : "site_id",
  "value" : "7db2702e-4d18-478f-856b-11cbcf5f1dbc"
}
}]
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

Racks

Listing Racks

Function

This API is used to list racks.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:region:list`.

URI

GET `/v1/{domain_id}/racks`

Table 4-157 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.

Table 4-158 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	The number of records on each page.
marker	No	String	Pagination marker.

Parameter	Mandatory	Type	Description
sort_key	No	Array of strings	Field for sorting.
sort_dir	No	Array of strings	Sorting order. Options: • desc: descending order • asc: ascending order
edge_site_id	No	String	Edge site ID.

Request Parameters

Table 4-159 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-160 Response body parameters

Parameter	Type	Description
racks	Array of Rack objects	Rack list.
page_info	PageInfo object	Pagination information.

Table 4-161 Rack

Parameter	Type	Description
id	String	Rack ID.
name	String	Rack name.
edge_site_id	String	Edge site ID.
rack_category_id	String	Rack category ID.
rack_type	String	Rack type.

Parameter	Type	Description
status	String	Rack status. Options: • CREATING: Creating • AVAILABLE: Available • EXPANDING: Expanding • PENDING_PAYMENT: Pending payment
storage_assigned_size	Integer	Allocated storage capacity.
description	String	Rack description.
rack_sn_no	String	Rack SN.
rack_location_no	String	Rack location number.
created_at	String	Creation time.
updated_at	String	Update time.
effected_at	String	Effective time.
market_options	MarketOptions object	Billing information.
compute_unit	Array of ComputeSpec objects	Compute unit information.
storage_unit	StorageUnit object	Storage unit.
rack_info	RackInfo object	Rack information.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.

Table 4-162 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: Yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.
strategies	Array of Strategy objects	The list of sales strategies.

Table 4-163 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 4-164 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: Frozen
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Table 4-165 ComputeSpec

Parameter	Type	Description
flavor_type	String	Compute flavor type, for example, C6.
count	Integer	The number of compute devices to be included in a specific rack category.

Table 4-166 StorageUnit

Parameter	Type	Description
storage_type	String	Storage type. Options: • SAS: high I/O • SSD: ultra-high I/O • SAS_SD: high I/O (software-defined) • SSD_SD: ultra-high I/O (software-defined) • SAS_ARM: high I/O (Kunpeng) • SSD_ARM: ultra-high I/O (Kunpeng) • VS_SMALL_CAP: edge object storage (small-capacity) • VS_MEDIUM_CAP: edge object storage (medium-capacity) • VS_LARGE_CAP: edge object storage (large-capacity) • CBR_STANDARD_SMALL_CAP: Cloud Backup and Recovery (basic edition) (small-capacity) • CBR_STANDARD_MEDIUM_CAP: Cloud Backup and Recovery (basic edition) (medium-capacity) • CBR_STANDARD_LARGE_CAP: Cloud Backup and Recovery (basic edition) (large-capacity) • CBR_STANDARD_SMALL_CAP: Cloud Backup and Recovery (professional edition) (small-capacity) • CBR_PROFESSIONAL_MEDIUM_CAP: Cloud Backup and Recovery (professional edition) (medium-capacity) • CBR_PROFESSIONAL_LARGE_CAP: Cloud Backup and Recovery (professional edition) (large-capacity)
capacity	Integer	Storage pool size, in TB.
gears	Array of integers	Sales tiers of storage pools.
flavor_type	String	Flavor type such as highio-4T.
count	Integer	The number of storage nodes.

Table 4-167 RackInfo

Parameter	Type	Description
power	Integer	Rack power (w).
size	String	Rack size, for example, 100 x 200 x 200 (cm).
has_lock	Boolean	Whether racks have locks.

Table 4-168 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 4-169 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Listing racks

```
GET https://{ies_endpoint}/v1/{domain_id}/racks
```

Example Response

Status code: 200

successful operation

```
{
  "racks": [ {
    "id": "fe89570e-da65-4a4d-a64b-03231257dd96",
    "name": "basic-absuv",
    "edge_site_id": "a4a36874-c41b-4295-9fd5-6823864fd564",
    "rack_category_id": "47ac059f-5df3-422b-b08a-eabba8c01980",
    "rack_type": "BASIC",
    "status": "AVAILABLE",
```

```
{
  "storage_assigned_size" : 36,
  "description" : null,
  "rack_sn_no" : "rack_sn_no",
  "rack_location_no" : "rack_location_no",
  "created_at" : "2022-01-18T02:56:02.759098Z",
  "updated_at" : "2022-01-18T02:59:56.559151Z",
  "effected_at" : "2022-01-19T02:59:25Z",
  "market_options" : {
    "charge_mode" : "prepaid",
    "prepaid_options" : {
      "order_id" : "CS2201181056V3SK6",
      "product_id" : "OFFI645544463633592326",
      "pay_mode" : "FULL"
    }
  },
  "compute_unit" : [ {
    "flavor_type" : "C6",
    "count" : 4
  }, {
    "flavor_type" : "Pi2",
    "count" : 1
  } ],
  "storage_unit" : {
    "storage_type" : "SAS",
    "capacity" : 144,
    "gears" : [ 36, 72, 108, 144 ],
    "flavor_type" : "string",
    "count" : 1
  },
  "rack_info" : {
    "power" : 6000,
    "size" : "600 mm x 1,200 mm x 2,000 mm (width x depth x height)",
    "has_lock" : true
  }
},
{
  "page_info" : {
    "current_count" : 1
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

4.13.2 Viewing Details About a Rack

Function

This API is used to query details about a rack.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:rack:get`.

URI

GET /v1/{domain_id}/racks/{id}

Table 4-170 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
id	Yes	String	Resource ID.

Request Parameters

Table 4-171 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-172 Response body parameters

Parameter	Type	Description
rack	Rack object	Rack information.

Table 4-173 Rack

Parameter	Type	Description
id	String	Rack ID.
name	String	Rack name.
edge_site_id	String	Edge site ID.
rack_category_id	String	Rack category ID.
rack_type	String	Rack type. Range - BASIC : Basic - EXTEND : Extension - EXTRA : Compute

Parameter	Type	Description
status	String	Rack status. Options: • CREATING: Creating • AVAILABLE: Available • EXPANDING: Expanding • PENDING_PAYMENT: Pending payment
storage_assigned_size	Integer	Allocated storage capacity.
description	String	Rack description.
rack_sn_no	String	Rack SN.
rack_location_no	String	Rack location number.
created_at	String	Creation time.
updated_at	String	Update time.
effected_at	String	Effective time.
market_options	MarketOptions object	Billing information.
compute_unit	Array of ComputeSpec objects	Compute unit information.
storage_unit	StorageUnit object	Storage unit.
rack_info	RackInfo object	Rack information.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.

Table 4-174 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: Yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.
strategies	Array of Strategy objects	The list of sales strategies.

Table 4-175 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 4-176 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: Frozen
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Table 4-177 ComputeSpec

Parameter	Type	Description
flavor_type	String	Compute flavor type, for example, C6.
count	Integer	The number of compute devices to be included in a specific rack category.

Table 4-178 StorageUnit

Parameter	Type	Description
storage_type	String	Storage type. Options: • SAS: high I/O • SSD: ultra-high I/O • SAS_SD: high I/O (software-defined) • SSD_SD: ultra-high I/O (software-defined) • SAS_ARM: high I/O (Kunpeng) • SSD_ARM: ultra-high I/O (Kunpeng) • VS_SMALL_CAP: edge object storage (small-capacity) • VS_MEDIUM_CAP: edge object storage (medium-capacity) • VS_LARGE_CAP: edge object storage (large-capacity) • CBR_STANDARD_SMALL_CAP: Cloud Backup and Recovery (basic edition) (small-capacity) • CBR_STANDARD_MEDIUM_CAP: Cloud Backup and Recovery (basic edition) (medium-capacity) • CBR_STANDARD_LARGE_CAP: Cloud Backup and Recovery (basic edition) (large-capacity) • CBR_PROFESSIONAL_SMALL_CAP: Cloud Backup and Recovery (professional edition) (small-capacity) • CBR_PROFESSIONAL_MEDIUM_CAP: Cloud Backup and Recovery (professional edition) (medium-capacity) • CBR_PROFESSIONAL_LARGE_CAP: Cloud Backup and Recovery (professional edition) (large-capacity)
capacity	Integer	Storage pool size, in TB.
gears	Array of integers	Sales tiers of storage pools.
flavor_type	String	Flavor type such as highio-4T.
count	Integer	The number of storage nodes.

Table 4-179 RackInfo

Parameter	Type	Description
power	Integer	Rack power (w).
size	String	Rack size, for example, 100 x 200 x 200 (cm).
has_lock	Boolean	Whether racks have locks.

Table 4-180 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Example Request

Viewing details about a rack

```
GET https://{ies_endpoint}/v1/{domain_id}/racks/{id}
```

Example Response

Status code: 200

successful operation

```
{
  "rack": {
    "id": "fe89570e-da65-4a4d-a64b-03231257dd96",
    "name": "basic-absuv",
    "edge_site_id": "a4a36874-c41b-4295-9fd5-6823864fd564",
    "rack_category_id": "47ac059f-5df3-422b-b08a-eabba8c01980",
    "rack_type": "BASIC",
    "status": "AVAILABLE",
    "storage_assigned_size": 36,
    "description": null,
    "rack_sn_no": "rack_sn_no",
    "rack_location_no": "rack_location_no",
    "created_at": "2022-01-18T02:56:02.759098Z",
    "updated_at": "2022-01-18T02:59:56.559151Z",
    "effected_at": "2022-01-19T02:59:25Z",
    "market_options": {
      "charge_mode": "prepaid",
      "prepaid_options": {
        "order_id": "CS2201181056V3SK6",
        "product_id": "OFFI645544463633592326",
        "pay_mode": "FULL"
      }
    }
  }
}
```

```
    },
    "compute_unit" : [ {
      "flavor_type" : "C6",
      "count" : 4
    }, {
      "flavor_type" : "Pi2",
      "count" : 1
    } ],
    "storage_unit" : {
      "storage_type" : "SAS",
      "capacity" : 144,
      "gears" : [ 36, 72, 108, 144 ],
      "flavor_type" : "string",
      "count" : 1
    },
    "rack_info" : {
      "power" : 6000,
      "size" : "600 mm x 1,200 mm x 2,000 mm (width x depth x height)",
      "has_lock" : true
    }
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

5 Historical APIs

5.1 Storage Pools

5.1.1 Querying Storage Pools

Function

This API is used to list storage pools.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:storagePool:list`.

URI

GET `/v1/{domain_id}/storage-pools`

Table 5-1 URI parameter

Parameter	Mandatory	Type	Description
<code>domain_id</code>	Yes	String	Account ID in the URI.

Table 5-2 Query parameters

Parameter	Mandatory	Type	Description
<code>limit</code>	No	Integer	The number of records on each page.
<code>marker</code>	No	String	Pagination marker.
<code>sort_key</code>	No	Array of strings	Field for sorting.

Parameter	Mandatory	Type	Description
sort_dir	No	Array of strings	Sorting order. Options: • desc: descending order • asc: ascending order
edge_site_id	No	String	Edge site ID.

Request Parameters

Table 5-3 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 5-4 Response body parameters

Parameter	Type	Description
storage_pools	Array of StoragePool objects	Storage pool list.
page_info	PageInfo object	Pagination information.

Table 5-5 StoragePool

Parameter	Type	Description
id	String	Storage pool ID.
name	String	Storage pool name.
edge_site_id	String	Edge site ID.

Parameter	Type	Description
storage_type	String	Storage types: • SAS: high I/O • SSD: ultra-high I/O • SAS_SD: high I/O (software-defined) • SSD_SD: ultra-high I/O (software-defined) • SAS_ARM: high I/O (Kunpeng) • SSD_ARM: ultra-high I/O (Kunpeng) • VS_SMALL_CAP: edge object storage (small-capacity) • VS_MEDIUM_CAP: edge object storage (medium-capacity) • VS_LARGE_CAP: edge object storage (large-capacity) • CBR_STANDARD_SMALL_CAP: Cloud Backup and Recovery (basic edition) (small-capacity) • CBR_STANDARD_MEDIUM_CAP: Cloud Backup and Recovery (basic edition) (medium-capacity) • CBR_STANDARD_LARGE_CAP: Cloud Backup and Recovery (basic edition) (large-capacity) • CBR_PROFESSIONAL_SMALL_CAP: Cloud Backup and Recovery (professional edition) (small-capacity) • CBR_PROFESSIONAL_MEDIUM_CAP: Cloud Backup and Recovery (professional edition) (medium-capacity) • CBR_PROFESSIONAL_LARGE_CAP: Cloud Backup and Recovery (professional edition) (large-capacity)

Parameter	Type	Description
status	String	The storage pool status. Options: • CREATING: Creating • AVAILABLE: Available • EXPANDING: Expanding • PENDING_PAYMENT: Pending payment • FROZEN: Frozen
assigned_size	Integer	Storage pool size. Purchased storage capacity.
resource_spec_code	String	Resource specification code.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
capacity	Integer	Total capacity.
market_options	MarketOptions object	Billing information.
created_at	String	Creation time.
updated_at	String	Update time.
effected_at	String	Effective time.

Table 5-6 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 5-7 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.

Parameter	Type	Description
strategies	Array of Strategy objects	The list of sales strategies.

Table 5-8 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 5-9 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: frozen
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Table 5-10 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page.
current_count	Integer	The number of records on the current page.

Example Request

Querying storage pools

```
GET https://{ies_endpoint}/v1/{domain_id}/storage-pools
```

Example Response

Status code: 200

successful operation

```
{
  "storage_pools" : [ {
    "id" : "d70a8f73-edef-4b71-beb3-7dbc22f0365e",
    "name" : "SAS-ojoiv",
    "edge_site_id" : "a4a36874-c41b-4295-9fd5-6823864fd564",
    "storage_type" : "SAS",
    "status" : "AVAILABLE",
    "assigned_size" : 36,
    "resource_spec_code" : "ies.blockstorage.gear1",
    "product_info" : {
      "cloud_service_type" : "hws.service.type.ies",
      "resource_type" : "hws.resource.type.iesvolume",
      "resource_spec_code" : "ies.blockstorage.gear1"
    },
    "capacity" : 144,
    "market_options" : {
      "charge_mode" : "prepaid",
      "prepaid_options" : {
        "order_id" : "CS2201181056V3SK6",
        "product_id" : "OFFI644832402269233154",
        "pay_mode" : "FULL"
      }
    },
    "created_at" : "2022-01-18T02:56:02.76091Z",
    "updated_at" : "2022-01-18T02:59:56.5601Z",
    "effectuated_at" : "2022-01-19T02:59:25Z"
  } ],
  "page_info" : {
    "current_count" : 1
  }
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

5.1.2 Querying Details About a Storage Pool

Function

This API is used to query details about a storage pool.

- This API supports fine-grained permissions for enterprise projects. For details, see `ies:storagePool:get`.

URI

GET /v1/{domain_id}/storage-pools/{id}

Table 5-11 URI parameter

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID in the URI.
id	Yes	String	Storage pool ID.

Request Parameters

Table 5-12 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameter

Status code: 200

Table 5-13 Response body parameter

Parameter	Type	Description
storage_pool	StoragePool object	Storage pool information.

Table 5-14 StoragePool

Parameter	Type	Description
id	String	Storage pool ID.
name	String	Storage pool name.
edge_site_id	String	Edge site ID.
storage_type	String	Storage types: • SAS: high I/O • SSD: ultra-high I/O • SAS_SD: high I/O (software-defined) • SSD_SD: ultra-high I/O (software-defined) • SAS_ARM: high I/O (Kunpeng) • SSD_ARM: ultra-high I/O (Kunpeng) • VS_SMALL_CAP: edge object storage (small-capacity) • VS_MEDIUM_CAP: edge object storage (medium-capacity) • VS_LARGE_CAP: edge object storage (large-capacity) • CBR_STANDARD_SMALL_CAP: Cloud Backup and Recovery (basic edition) (small-capacity) • CBR_STANDARD_MEDIUM_CAP: Cloud Backup and Recovery (basic edition) (medium-capacity) • CBR_STANDARD_LARGE_CAP: Cloud Backup and Recovery (basic edition) (large-capacity) • CBR_PROFESSIONAL_SMALL_CAP: Cloud Backup and Recovery (professional edition) (small-capacity) • CBR_PROFESSIONAL_MEDIUM_CAP: Cloud Backup and Recovery (professional edition) (medium-capacity) • CBR_PROFESSIONAL_LARGE_CAP: Cloud Backup and Recovery (professional edition) (large-capacity)

Parameter	Type	Description
status	String	The storage pool status. Options: • CREATING: Creating • AVAILABLE: Available • EXPANDING: Expanding • PENDING_PAYMENT: Pending payment • FROZEN: Frozen
assigned_size	Integer	Storage pool size. Purchased storage capacity.
resource_spec_code	String	Resource specification code.
product_info	ProductInfo object	Attribute information about the product to which the offering belongs.
capacity	Integer	Total capacity.
market_options	MarketOptions object	Billing information.
created_at	String	Creation time.
updated_at	String	Update time.
effected_at	String	Effective time.

Table 5-15 ProductInfo

Parameter	Type	Description
cloud_service_type	String	Cloud service type.
resource_type	String	Resource type.
resource_spec_code	String	Resource code.

Table 5-16 MarketOptions

Parameter	Type	Description
charge_mode	String	Billing mode. • prepaid: yearly/monthly
prepaid_options	PrepaidOptions object	Yearly/Monthly billing information.

Parameter	Type	Description
strategies	Array of Strategy objects	The list of sales strategies.

Table 5-17 PrepaidOptions

Parameter	Type	Description
order_id	String	Order ID.
product_id	String	Product ID.
pay_mode	String	Yearly/monthly payment type. Options: • FULL: All upfront payments • HALF: Half upfront payments • PAID_BY_YEAR: Yearly payments • ZERO_PAID_BY_YEAR: Yearly payments without upfront

Table 5-18 Strategy

Parameter	Type	Description
status	String	O&M status. • FREEZE: frozen
scene	String	Resource operating status. Options: ARREAR : Resources are in arrears. POLICE : Resources are frozen for public security. ILLEGAL : Resources are frozen due to violation of laws and regulations. VERIFY : Resources are frozen because the user fails to pass real-name authentication.
effect	String	Resource operations: DELETABLE : Resources can be deleted. UNDELETABLE : Resources cannot be deleted.

Example Request

Querying details about a storage pool

```
GET https://{ies_endpoint}/v1/{domain_id}/storage-pools/{id}
```

Example Response

Status code: 200

successful operation

```
{
  "storage_pool" : {
    "id" : "d70a8f73-edef-4b71-beb3-7dbc22f0365e",
    "name" : "SAS-ojoiv",
    "edge_site_id" : "a4a36874-c41b-4295-9fd5-6823864fd564",
    "storage_type" : "SAS",
    "status" : "AVAILABLE",
    "assigned_size" : 36,
    "resource_spec_code" : "ies.blockstorage.gear1",
    "product_info" : {
      "cloud_service_type" : "hws.service.type.ies",
      "resource_type" : "hws.resource.type.iesvolume",
      "resource_spec_code" : "ies.blockstorage.gear1"
    },
    "capacity" : 144,
    "market_options" : {
      "charge_mode" : "prepaid",
      "prepaid_options" : {
        "order_id" : "CS2201181056V3SK6",
        "product_id" : "OFFI644832402269233154",
        "pay_mode" : "FULL"
      }
    }
  },
  "created_at" : "2022-01-18T02:56:02.76091Z",
  "updated_at" : "2022-01-18T02:59:56.5601Z",
  "effected_at" : "2022-01-19T02:59:25Z"
}
```

Status Code

Status Code	Description
200	successful operation

Error Codes

For details, see [Error Codes](#).

6Appendixes

6.1 Status Codes

Table 6-1 Status codes

Status Code	Description
200 OK	The request is normal.
301 Moved Permanently	The requested resource has been assigned a new permanent URI, and the new URI is contained in the response.
302 Found	The requested resource was temporarily moved.
304 Not Modified	The requested resource has not been modified. In such a case, there is no need to retransmit the resource since the client has a previously-downloaded copy.
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	Access to the requested page is forbidden.
404 Not Found	The requested page was not found.
405 Method Not Allowed	The method specified in the request is not allowed.
406 Not Acceptable	The response generated by the server could not be received by the client.

Status Code	Description
407 Proxy Authentication Required	You must use the proxy server for authentication. Then the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
416 Requested range not satisfiable	The requested range is invalid.
500 Internal Server Error	Failed to complete the request because an exception occurs.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the server receives an invalid response from the upstream server.
503 Service Unavailable	Failed to complete the request because the system is temporarily abnormal.
504 Gateway Timeout	A gateway timed out.

6.2 Error Codes

If an error code starting with **APIGW** is returned after you call an API, rectify the fault according to [API Gateway Error Codes](#).

Status Code	Error Codes	Error Message	Description	Solution
400	IES.00001005	param is invalid.	Invalid request parameters.	Check the request parameters by referring to the product documentation and try again.
400	IES.00001008	quota is insufficient.	Insufficient quotas.	Delete unnecessary resources or increase the quota and then try again.

Status Code	Error Codes	Error Message	Description	Solution
400	IES.00011001	edge site name has already existed, can not create or update.	The edge site name already exists and cannot be created or updated.	Modify the site name and try again.
400	IES.00011007	edge site status, can not update properties location.	The location of the edge site in this state cannot be updated.	Check the edge site ID and try again.
400	SYS.0400	Bad request	Incorrect request parameter.	Check the request parameter by referring to the product documentation and try again.
401	SYS.0401	Unauthorized.	Unauthorized.	Contact customer service.
403	IES.00001003	not allowed to perform, please apply for beta permission	Insufficient permissions.	Apply for the OBT permissions.
403	IES.00011003	edge site of this status can not be deleted.	The edge site in this state cannot be deleted.	Check the edge site ID and try again.
404	IES.00011002	edge site not exists.	The edge site is not found.	Check the edge site ID and try again.
404	IES.00021001	region id not exists.	CloudPond is unavailable in this region.	Change the region or contact customer service.
404	SYS.0404	Resource not Found	Resources are not found.	Change the resource ID and try again.
500	IES.00001001	parse token error, context is empty	Incorrect token.	Change the token or contact customer service.
500	IES.00001007	token is invalid.	Invalid token.	Modify the token and try again.

Status Code	Error Codes	Error Message	Description	Solution
500	IES.00011004	region not exists, can not create edge site.	Failed to regional an edge site because you do not have the permissions for this region.	Change the region or contact customer service.
500	IES.00011005	create edge site error.	An error occurred when registering an edge site.	Contact customer service.
500	SYS.0500	Internal service error.	Internal service error.	Contact customer service.

6.3 Obtaining an Account ID

An account ID is required for some URLs when an API is called. To obtain an account ID, perform the following operations:

1. Register and log in to [CloudPond console](#).
2. Hover the mouse over the username and select **My Credentials** from the drop-down list.

On the **My Credentials** page, view the **Account ID**.

Figure 6-1 Obtaining an account ID

My Credentials ⓘ			
IAM Username	mWX1447089	Account Name	hwstaff_pub_CBInfo_iasS
IAM User ID	gESpChK0RyQXcJvR7aQugs9MFeeQKqM	Account ID	3c24f68852945a0af194f53ca075bd