Cloud Eye API Reference-24.9.0

Issue 01

Date 2025-11-20

HUAWEI

HUAWEI CLOUD COMPUTING TECHNOLOGIES CO., LTD.

Copyright © Huawei Cloud Computing Technologies Co., Ltd. 2025. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Cloud Computing Technologies Co., Ltd.

Trademarks and Permissions

and other Huawei trademarks are the property of Huawei Technologies Co., Ltd.
All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the contract made between Huawei Cloud and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Contents

1 Before You Start 1
2 API Overview 3
3 Calling APIs 11
3.1 Making an API Request 11
3.2 Authentication 15
3.3 Response 16
4 Getting Started 19
5 API V1 21
5.1 API Version Management 21
5.1.1 Querying All API Versions 21
5.1.2 Querying a Specified API Version 23
5.2 Metrics 26
5.2.1 Querying Metrics 26
5.3 Alarm Rules 32
5.3.1 Querying Alarm Rules (V1) 32
5.3.2 Querying an Alarm Rule 50
5.3.3 Enabling or Disabling an Alarm Rule 64
5.3.4 Deleting an Alarm Rule 66
5.3.5 Creating an Alarm Rule (V1) 67
5.3.6 Creating a Custom Alarm Template 84
5.3.7 Deleting a Custom Alarm Template 90
5.3.8 Querying Alarm History 91
5.3.9 Querying Custom Alarm Templates 108
5.3.10 Updating a Custom Alarm Template 115
5.3.11 Modifying an Alarm Rule 119
5.4 Monitoring Data 127
5.4.1 Querying Monitoring Data of a Metric 127
5.4.2 Adding Monitoring Data 137
5.4.3 Querying Monitoring Data of Multiple Metrics 145
5.4.4 Querying the Host Configuration 161
5.5 Quotas 166
5.5.1 Querying Quotas 166

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

5.6 Resource Groups ... 171
5.6.1 Querying Resources in a Resource Group ... 171
5.6.2 Creating a Resource Group ... 184
5.6.3 Updating a Resource Group ... 192
5.6.4 Deleting a Resource Group ... 201
5.6.5 Query Resource Groups ... 202
5.7 Event Monitoring ... 208
5.7.1 Reporting an Event ... 208
5.7.2 Querying Events ... 219
5.7.3 Querying the Monitoring Details of an Event ... 224
6 API V2 ... 239
6.1 Alarm Rules ... 239
6.1.1 Creating an Alarm Rule (Recommended) ... 239
6.1.2 Batch Deleting Alarm Rules ... 260
6.1.3 Enabling or Disabling Alarm Rules in Batches ... 263
6.1.4 Querying Alarm Rules (Recommended) ... 266
6.2 Alarm Resources ... 287
6.2.1 Batch Adding Resources to an Alarm Rule ... 287
6.2.2 Batch Deleting Resources from an Alarm Rule ... 291
6.2.3 Querying Resources in an Alarm Rule ... 295
6.3 Alarm Policies ... 300
6.3.1 Modifying All Fields in an Alarm Policy ... 300
6.3.2 Querying Alarm Policies ... 318
6.4 Alert Notifications ... 328
6.4.1 Modifying Alarm Notification Information in an Alarm Rule ... 328
6.5 Alarm Records ... 337
6.5.1 This API is used to query alarm records ... 337
6.6 Alarm Templates ... 355
6.6.1 Creating a Custom Alarm Template ... 355
6.6.2 Deleting Custom Alarm Templates in Batches ... 370
6.6.3 This API is used to modify a custom template ... 373
6.6.4 Querying Alarm Templates ... 386
6.6.5 Querying Details of an Alarm Template ... 391
6.7 Alarm Rules Associated with an Alarm Template ... 400
6.7.1 Querying Alarm Rules Associated with an Alarm Template ... 400
6.8 Resource Groups ... 403
6.8.1 Creating a Resource Group (Recommended) ... 403
6.8.2 This API is used to delete resource groups in batches ... 421
6.8.3 Modifying a Resource Group ... 424
6.8.4 Querying Details of a Resource Group ... 434
6.8.5 Querying Resource Groups ... 445
6.9 Resources in a Resource Group ... 450

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

6.9.1 Batch Adding Resources to a Resource Group....450
6.9.2 Batch Deleting Resources from a Resource Group....456
6.9.3 Querying Resources of a Specified Dimension and a Specified Service Type in a Resource Group....463
6.10 One-Click Monitoring....469
6.10.1 Enabling One-Click Monitoring....469
6.10.2 Querying Services and Resources That Support One-Click Monitoring....493
6.10.3 Querying Alarm Rules of a Service in One-Click Monitoring....497
6.10.4 Batch Enabling or Disabling Alarm Rules for One Service in One-Click Monitoring....514
6.10.5 Batch Disabling One-Click Motoring....518
6.10.6 Batch Modifying Alarm Notifications in Alarm Rules for One Service with One-Click Monitoring Enabled....522
6.10.7 Batch Enabling or Disabling Alarm Rules for One Service with One-Click Monitoring Enabled....531
6.11 Alarm Masking Rules....535
6.11.1 Creating Alarm Masking Rules in Batches....535
6.11.2 Modifying the Masking Time of Alarm Masking Rules in Batches....545
6.11.3 Modifying an Alarm Masking Rule....550
6.11.4 Deleting Alarm Masking Rules in Batches....561
6.11.5 Querying Alarm Masking Rules....564
6.11.6 Querying Resources for Which an Alarm Masking Rule Is Applied....585
6.12 Dashboards....590
6.12.1 Creating or Copying a Dashboard....591
6.12.2 Querying Dashboards....595
6.12.3 Modifying a Dashboard....603
6.12.4 Deleting Dashboards in Batches....608
6.13 Graphs....612
6.13.1 Creating, Copying, or Batch Creating Graphs on a Dashboard....613
6.13.2 Querying Graphs Added to a Dashboard....630
6.13.3 Querying Information About a Graph....643
6.13.4 Deleting a Graph....656
6.13.5 Updating Graphs in Batches....659
6.14 Resource Tag Management....672
6.14.1 Querying Tags for a Specified Resource Type in a Cloud Eye Project....672
6.15 Metric Management....676
6.15.1 Querying the Original Dimension Values in Server Monitoring....676

7 API V3....683

7.1 Agent Statuses....683
7.1.1 Querying Agent Statuses in Batches....683
7.2 Agent maintenance tasks....689
7.2.1 Querying the Agent Maintenance Tasks....689
7.2.2 Creating Agent maintenance Tasks in Batches....695

8 Permissions Policies and Supported Actions....702

8.1 Introduction....702

8.2 Supported Actions of the API Version Management APIs....703
8.3 Supported Actions of the Metric Management API....704
8.4 Supported Actions of the Alarm Rule Management APIs....705
8.5 Supported Actions of the Monitoring Data Management APIs....706
8.6 Supported Actions of the Quota Management API....707
8.7 Supported Actions of the Event Monitoring API....707
9 Common Parameters....708
9.1 Status Codes....708
9.2 Error Codes....709
9.3 Obtaining a Project ID....712
10 Appendix....714
10.1 Services Interconnected with Cloud Eye....714
10.2 Events Supported by Event Monitoring....724
11 Change History....895

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

1 Before You Start

Welcome to *Cloud Eye API Reference*. Cloud Eye is a multi-dimensional resource monitoring platform. Customers can use Cloud Eye to monitor the utilization of service resources, track the status of cloud services, configure alarm rules and notifications, and quickly respond to resource changes.

This document describes how to use application programming interfaces (APIs) to perform operations on metrics, alarm rules, and monitoring data, such as querying the metric list and the alarm rule list, creating alarm rules, and deleting alarm rules. For details about all supported operations, see **API Overview**.

If you plan to access Cloud Eye through an API, ensure that you are familiar with Cloud Eye concepts. For details, see **What Is Cloud Eye?**

API Calling

Cloud Eye supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see **Calling APIs**.

Additionally, Cloud Eye offers software development kits (SDKs) of multiple programming languages. For details about how to use SDKs, see **Huawei Cloud SDKs**.

Endpoints

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

Constraints

- The number of alarm rules that you can create is determined by your quota. To view or increase the quota, see **Quota Adjustment**.
- For more constraints, see API description.

Concepts

- Account

  An account is created upon successful signing up. The account has full access permissions for all of its cloud services and resources. It can be used to reset

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine management. For security purposes, create Identity and Access Management (IAM) users and grant them permissions for routine management.

- User

  An IAM user is created by an account in IAM to use cloud services. Each IAM user has its own identity credentials (password and access keys).

  API authentication requires information such as the account name, username, and password.

- 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.

  For details, see **Region and AZ**.

- 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.

- Project

  A project corresponds to a region. Default projects are defined. Users can be granted permissions in a default project to access all resources under their accounts in the region associated with the project. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

- Enterprise Project

  Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated.

  For details about enterprise projects and about how to obtain enterprise project IDs, see ***Enterprise Management User Guide***.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

2 API Overview

Cloud Eye APIs allow you to use all Cloud Eye functions. For example, you can query the metric list and create alarm rules.

Table 2-1 API description

Type	Subtype	API	Description
API V1	API Version Management	**Querying All API Versions**	Query all API versions supported by Cloud Eye.
		Querying a Specified API Version	Query a specified API version of Cloud Eye.
	Metric Management	**Querying Metrics**	Query metrics supported by Cloud Eye.
	Alarm Rules	**Querying Alarm Rules (V1)**	Query alarm rules.
		Querying an Alarm Rule	Query details of an alarm rule based on its ID.
		Enabling or Disabling an Alarm Rule	Enable or disable an alarm rule based on the alarm rule ID.
		Deleting an Alarm Rule	Delete an alarm rule based on its ID.
		Creating an Alarm Rule (V1)	Create an alarm rule.
		Creating a Custom Alarm Template	Create a custom alarm template to add an alarm rule for one or more metrics.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Type	Subtype	API	Description
		Deleting a Custom Alarm Template	Delete a custom alarm template.
		Querying Alarm History	Query the alarm history of an alarm rule based on its ID.
		Querying Custom Alarm Templates	Query the list of custom alarm templates.
		Updating a Custom Alarm Template	Update a custom alarm template.
		Modifying an Alarm Rule	Modify an alarm rule.
	Monitoring Data Management	Querying Monitoring Data of a Metric	Query the monitoring data of a metric at a specified granularity in a specified time range.
		Adding Monitoring Data	Add one or more pieces of metric data.
		Querying Monitoring Data of Multiple Metrics	Batch query data of a specified metric at a specified granularity in a specified time range.
		Querying the Host Configuration	Query the server configuration for a specified event type in a specified time range. You can specify the dimension of data to be queried.
	Quota Management	Querying Quotas	Query the alarm rule quota.
	Resource Groups	Querying Resources in a Resource Group	Query resources in resource groups by resource group ID.
		Creating a Resource Group	Create a resource group. You can use resource groups to manage resources by service, and view monitoring and alarm information by group to ease O&M.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Type	Subtype	API	Description
		Updating a Resource Group	Update a resource group. You can use resource groups to manage resources by service, and view monitoring and alarm information by group to ease O&M.
		Deleting a Resource Group	Delete a resource group.
		Query Resource Groups	Query all resource groups you created.
	Event Monitoring	**Reporting an Event**	Report custom events.
		Querying Events	Query events, including system events and custom events.
		Querying the Monitoring Details of an Event	Query details of an event based on its name.
API V2	Alarm Rules	**Creating an Alarm Rule (Recommended)**	Create an alarm rule.
		Batch Deleting Alarm Rules	Delete alarm rules in batches.
		Enabling or Disabling Alarm Rules in Batches	Enable or disable alarm rules in batches.
		Querying Alarm Rules (Recommended)	Query the alarm rule list.
	Monitored Resources	**Batch Adding Resources to an Alarm Rule**	Batch add monitored resources to an alarm rule. (Alarm rules for resources in resource groups are excluded.)
		Batch Deleting Resources from an Alarm Rule	Batch delete monitored resources from an alarm rule. (Alarm rules for resources in resource groups are excluded.)

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Type	Subtype	API	Description
		Querying Resources in an Alarm Rule	Query resources in an alarm rule based on the alarm rule ID.
	Alarm Policies	Modifying All Fields in an Alarm Policy	Modify policies in an alarm rule.
		Querying Alarm Policies	Query alarm policies based on the alarm rule ID.
	Alarm Notifications	Modifying Alarm Notification Information in an Alarm Rule	Modify alarm notification information in an alarm rule.
	Alarm Records	This API is used to query alarm records.	Query alarm records.
	Alarm Templates	Creating a Custom Alarm Template	Create a custom alarm template.
		Deleting Custom Alarm Templates in Batches	Delete custom templates in batches.
		This API is used to modify a custom template.	Modify a custom template.
		Querying Alarm Templates	Query alarm templates.
		Querying Details of an Alarm Template	Query the alarm template details.
	Alarm Rules Associated with an Alarm Template	Querying Alarm Rules Associated with an Alarm Template	Query alarm rules associated with an alarm template.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Type	Subtype	API	Description
	Resource Groups	**Creating a Resource Group (Recommended)**	Create a resource group.
		This API is used to delete resource groups in batches.	Delete resource groups in batches.
		Modifying a Resource Group	Modify a resource group.
		Querying Details of a Resource Group	Query details of a resource group.
		Querying Resource Groups	Query resource groups.
	Resource Association in a Resource Group	**Batch Adding Resources to a Resource Group**	Batch add resources to a custom resource group.
		Batch Deleting Resources from a Resource Group	Batch delete resources from a resource group whose resources are manually added.
		Querying Resources of a Specified Dimension and a Specified Service Type in a Resource Group	Query resources of a specified dimension for a specified resource type in a resource group.
	One-Click Monitoring	**Enabling One-Click Monitoring**	Enable one-click monitoring.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Type	Subtype	API	Description
		Querying Services and Resources That Support One-Click Monitoring	Query services and resources that support one-click monitoring.
		Querying Alarm Rules of a Service in One-Click Monitoring	Query alarm rules of a service in one-click monitoring.
		Batch Enabling or Disabling Alarm Rules for One Service in One-Click Monitoring	Batch enable or disable alarm rules for a service in one-click monitoring.
		Batch Disabling One-Click Motoring	Batch disable one-click motoring.
		Batch Modifying Alarm Notifications in Alarm Rules for One Service with One-Click Monitoring Enabled	Batch modify alarm notifications in alarm rules for one service that has one-click monitoring enabled.
		Batch Enabling or Disabling Alarm Rules for One Service with One-Click Monitoring Enabled	Batch enable or disable alarm policies in alarm rules for one service that has one-click monitoring enabled.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Type	Subtype	API	Description
	Alarm Masking	Creating Alarm Masking Rules in Batches	Create alarm masking rules in batches.
		Modifying the Masking Time of Alarm Masking Rules in Batches	Modify the masking duration of alarm masking rules in batches.
		Modifying an Alarm Masking Rule	Modify an alarm masking rule.
		Deleting Alarm Masking Rules in Batches	Delete alarm masking rules in batches.
		Querying Alarm Masking Rules	Query alarm masking rules of a specified type in batches. Currently, a maximum of 100 masking rules can be queried in batches.
		Querying Resources for Which an Alarm Masking Rule Is Applied	Query resources for which alarm notifications have been masked.
	Dashboards	Creating or Copying a Dashboard	Create or copy a dashboard.
		Querying Dashboards	Query dashboards.
		Modifying a Dashboard	Modify a dashboard.
		Deleting Dashboards in Batches	Delete dashboards in batches.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Type	Subtype	API	Description
	Graphs	**Creating, Copying, or Batch Creating Graphs on a Dashboard**	Create, copy, or batch create graphs on a dashboard.
		Querying Graphs Added to a Dashboard	Query graphs added to a dashboard.
		Querying Information About a Graph	Query information about a graph.
		Deleting a Graph	Delete a graph.
		Updating Graphs in Batches	Update graphs in batches.
	Resource Tag Management	**Querying Tags for a Specified Resource Type in a Cloud Eye Project**	Query tags of a type of resources in a Cloud Eye project.
	Metric Management	**Querying the Original Dimension Values in Server Monitoring**	Query metrics by disk, mount point, process, graphics card, or RAID controller based on the ECS or BMS ID.
API V3	Agent Statuses	**Querying Agent Statuses in Batches**	Query the Agent (including the UniAgent) statuses.
	Agent Task-related APIs	**Querying the Agent Maintenance Tasks**	Query the Agent tasks.
		Creating Agent maintenance Tasks in Batches	Batch create Agent tasks.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

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 **creating an IAM user** as an example to demonstrate how to call an API.

Request URI

A request URI is in the following format:

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

Although a request URI is included in the request header, most programming languages or frameworks require 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 region **Dublin** is **iam.myhuaweicloud.eu**.
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to obtain a user token is **/v3/auth/tokens**.
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of *Parameter name*=*Parameter value*. For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

IAM is a global service. You can create an IAM user using the endpoint of IAM in any region. For example, to create an IAM user in the **EU-Dublin** region, obtain the endpoint of IAM (**iam.myhuaweicloud.eu**) for this region and the **resource-path** (**/v3.0/OS-USER/users**) in the URI of the API for **creating an IAM user**. Then construct the URI as follows:

```
https://iam.myhuaweicloud.eu/v3.0/OS-USER/users
```

NOTE

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

Request Methods

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

Table 3-2 HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.
DELETE	Requests the server to delete specified resources, for example, an object.
HEAD	Same as GET except that the server must return only the response header.
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 for **creating an IAM user**, the request method is **POST**. An example request is as follows:

```
POST https://iam.myhuaweicloud.eu/v3.0/OS-USER/users
```

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.

Common request header fields are as follows.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *Hostname:Port number*. 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	Specifies the type (or format) of the message body. 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	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in **Obtaining a Project ID**.	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b6c886cbaa340f9c0f4

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Description	Mandatory	Example Value
X-Auth-Token	Specifies the user token. It is a response to the API for **obtaining a user token** (This is the only API 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: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

NOTE

In addition to supporting authentication using tokens, APIs support authentication using AK/SK, which uses SDKs to sign a request. During the signature, the **Authorization** (signature authentication) and **X-Sdk-Date** (time when a request is sent) headers are automatically added in the request.

For more details, see "Authentication Using AK/SK" in **Authentication**.

The following shows an example request of the API for **creating an IAM user** when AK/SK authentication is used:

```
POST https://iam.myhuaweicloud.eu/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=**********, SignedHeaders=content-type;host;x-sdk-date, Signature=**********
```

(Optional) Request Body

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

The request body varies depending on APIs. Certain APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

The following shows an example request (a request body included) of the API for **creating an IAM user**. You can learn about request parameters and related description from this example. The bold parameters need to be replaced for a real request.

- **accountid**: account ID of an IAM user
- **username**: name of an IAM user
- **email**: email of an IAM user
- **password**: login password of an IAM user

```
POST https://iam.myhuaweicloud.eu/v3.0/OS-USER/users
Content-Type: application/json
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=**********, SignedHeaders=content-type;host;x-sdk-date,
Signature=**********

{
    "user": {
        "domain_id": "accountid",
        "name": "username",
        "password": "**********",
        "email": "email",
        "description": "IAM User Description"
    }
}
```

If all data required for the API request is available, you can send the request to call the API through **curl**, **Postman**, or coding.

3.2 Authentication

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

- Token authentication: Requests are authenticated using tokens.
- AK/SK authentication: Requests are encrypted using AK/SK pairs. AK/SK authentication is recommended because it is more secure than token authentication.

Token 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 **Obtaining User Token** API.

Cloud Eye is a project-level service. When you call the API, set **auth.scope** in the request body to **project**.

```
{
   "auth": {
      "identity": {
         "methods": [
            "password"
         ],
         "password": {
            "user": {
               "name": "username",   //IAM user name
               "password": "********",  //IAM user password
               "domain": {
                  "name": "domainname"  //Name of the account to which the IAM user belongs
               }
            }
         }
      },
      "scope": {
         "project": {
            "name": "xxxxxxxx"    //Project Name
         }
      }
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
    }
}
```

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:

```
GET https://iam.myhuaweicloud.eu/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFG....
```

AK/SK Authentication

NOTE

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

In AK/SK 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 that works with an SK to sign requests cryptographically.
- SK: secret access key, which works with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK authentication, you can use an AK/SK to sign requests based on the signature algorithm or using the signing SDK. 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 **create an IAM user**, the request is successful.

Response Header

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

Figure 3-1 shows the response header for the API used to **create an IAM user**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

NOTE

For security purposes, you are advised to set the token in ciphertext in configuration files or environment variables and decrypt it when using it.

Figure 3-1 Header fields of the response to the request for creating an IAM user


```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fceac8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_[redacted]_null_af2953f2bcc67a42325a69a19e6c32a2",
"Date": "Tue, 21 May 2024 09:03:40 GMT",
"Content-Type": "application/json; charset=utf8"
```


(Optional) Response Body

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 shows part of the response body for the API used to **create an IAM user**.


```
{
    "user": {
        "id": "c131886aec...",
        "name": "IAMUser",
        "description": "IAM User Description",
        "areacode": "",
        "phone": "",
        "email": "***@***.com",
        "status": null,
        "enabled": true,
        "pwd_status": false,
        "access_mode": "default",
        "is_domain_owner": false,
        "xuser_id": "",
        "xuser_type": "",
        "password_expires_at": null,
        "create_time": "2024-05-21T09:03:41.000000",
        "domain_id": "d78cbac1.....",
        "xdomain_id": "30086000.....",
        "xdomain_type": "",
        "default_project_id": null
    }
}
```


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 request message format is invalid.",
    "error_code": "IMG.0001"
}
```


 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

In the response body, **error_code** is an error code, and **error_msg** provides information about the error.

4 Getting Started

Overview

This topic describes how to call Cloud Eye APIs to create an alarm rule for the ECS CPU usage.

NOTE

The validity period of a token obtained from IAM is 24 hours. If you want to use a token for authentication, cache it to avoid frequently calling the IAM API.

Procedure

1. Obtain the token by referring to **Authentication**.
2. Query the list of metrics that can be monitored.

   Send **GET https://***Cloud Eye endpoint***/V1.0/{project_id}/metrics**.

   Add **X-Auth-Token** obtained in **1** to the request header.

   After the request is successfully responded, the **metrics** information is returned, such as **"metric_name": "cpu_util"** in the following figure.


```
{
    "metrics": [
        {
            "namespace": "SYS.ECS",
            "dimensions": [
                {
                    "name": "instance_id",
                    "value": "d9112af5-6913-4f3b-bd0a-3f96711e004d"
                }
            ],
            "metric_name": "cpu_util",
            "unit": "%"
        }
    ],
    "meta_data": {
        "count": 1,
        "marker": "SYS.ECS.cpu_util.instance_id:d9112af5-6913-4f3b-bd0a-3f96711e004d",
        "total": 7
    }
}
```


   If the request fails, an error code and error information are returned. For details, see **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

3. Create an alarm rule.

   Send **POST https://*Cloud Eye endpoint*/V1.0/{project_id}/alarms**.

   Specify the following parameters in the request body:

```
{
   "alarm_name": "alarm-rp0E",  //Alarm rule name (mandatory, string)
   "alarm_description": "",
   "metric": {
      "namespace": "SYS.ECS",  //Namespace (mandatory, string)
      "dimensions": [
         {
            "name": "instance_id",
            "value": "33328f02-3814-422e-b688-bfdba93d4051"
         }
      ],
      "metric_name": "cpu_util"   //Metric name (mandatory, string)
   },
   "condition": {
      "period": 300,      //Monitoring period (mandatory, integer)
      "filter": "average",     //Data rollup method (mandatory, string)
      "comparison_operator": ">=",    //Operator of the alarm threshold (mandatory, string)
      "value": 80, //Threshold (mandatory, string)
      "unit": "%",  //Data unit (mandatory, string)
      "count": 1
   },
   "alarm_enabled": true,
   "alarm_action_enabled": true,
   "alarm_level": 2,
   "alarm_actions": [
      {
         "type": "notification",
         "notificationList": [ ]
      }
   ],
   "ok_actions": [
      {
         "type": "notification",
         "notificationList": [ ]
      }
   ]
}
```

   If the request is responded, the alarm rule ID is returned.

```
{
   "alarm_id":"al1450321795427dR8p5mQBo"
}
```

   If the request fails, an error code and error information are returned. For details, see **Error Codes**.

   You can query, enable, disable, or delete alarm rules based on the alarm rule ID obtained in **3**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

5 API V1

5.1 API Version Management

5.1.1 Querying All API Versions

Function

This API is used to query all API versions supported by Cloud Eye.

URI

GET /

Request

Example request

```
GET https://{Cloud Eye endpoint}/
```

Response

- Response parameters

Table 5-1 Parameter description

Parameter	Type	Description
versions	Array of objects	Specifies the list of all versions. For details, see **Table 5-2**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-2 versions data structure description

Parameter	Type	Description
id	String	Specifies the version ID, for example, v1.
links	Array of objects	Specifies the API URL. For details, see **Table 5-3**.
version	String	Specifies the API version. If the APIs of this version support microversions, set this parameter to the supported maximum microversion. If the microversion is not supported, leave this parameter blank.
status	String	Specifies the version status. **CURRENT**: indicates a primary version. **SUPPORTED**: indicates an old version but is still supported. **DEPRECATED**: indicates a deprecated version which may be deleted later.
updated	String	Specifies the version release time, which must be the UTC time. For example, the release time of v1 is **2014-06-28T12:20:21Z**.
min_version	String	If the APIs of this version support microversions, set this parameter to the supported minimum microversion. If not, leave this parameter blank.

Table 5-3 links data structure description

Parameter	Type	Description
href	String	Specifies the reference address of the current API version.
rel	String	Specifies the relationship between the current API version and the referenced address.

- Example response

```
{
 "versions": [
  {
   "id": "V1.0",
   "links": [
    {
     "href": "https://x.x.x.x/V1.0/",
     "rel": "self"
    }
   ],
   "min_version": "",
   "status": "CURRENT",
   "updated": "2018-09-30T00:00:00Z",
   "version": ""
  }
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
 ]
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.1.2 Querying a Specified API Version

Function

This API is used to query a specified API version of Cloud Eye.

URI

GET /{api_version}

- Parameter description

  Table 5-4 Parameter description

Parameter	Mandatory	Description
api_version	Yes	**Definition** API version.

- Example

```
GET https://{Cloud Eye endpoint}/V1.0\
```

Request

None

Response

- Response parameters

Table 5-5 Parameter description

Parameter	Type	Description
version	Objects	**Definition** Version details. For details, see **Table 5-6**.

Table 5-6 versions data structure description

Parameter	Type	Description
id	String	**Definition** Version number, for example, **V1.0** **Range** 1 to 64 characters
links	Array of objects	**Definition** API URL. For details, see **Table 5-7**.
version	String	**Definition** API version. If the APIs of this version support micro versions, this parameter indicates the supported maximum micro version. If not, it is left blank. **Range** 1 to 64 characters
status	String	**Definition** Version status. **Range** **CURRENT**: widely used version **SUPPORTED**: earlier version which is still supported **DEPRECATED**: deprecated version which may be deleted later

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
updated	String	**Definition** Version release time in UTC. For example, the release time of v1 is **2014-06-28T12:20:21Z**. **Range** N/A
min_version	String	**Definition** API version. If the APIs of this version support micro versions, this parameter indicates the supported minimum micro version. If not, it is left blank. **Range** 1 to 64 characters

Table 5-7 links data structure description

Parameter	Type	Description
href	String	**Definition** Reference address of the current API version. **Range** N/A
rel	String	**Definition** Relationship between the current API version and the referenced address. **Range** N/A

- Example response

```
{
  "version": {
     "id": "V1.0",
     "links": [
       {
         "href": "https://x.x.x.x/V1.0/",
         "rel": "self"
       }
     ],
     "min_version": "",
     "status": "CURRENT",
     "updated": "2018-09-30T00:00:00Z",
     "version": ""
   }
}
```

Returned Values

- Normal

200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.2 Metrics

5.2.1 Querying Metrics

Function

This API is used to query metrics supported by Cloud Eye. You can specify the namespace, metric, dimension, sorting order, start records, and the maximum number of records when using this API to query metrics.

NOTICE

After a cloud service resource is deleted, its data is cached for 3 hours, so metrics of the resource can still be queried within the 3 hours.

URI

GET /V1.0/{project_id}/metrics

- Parameter description

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-8 Parameter description

Parameter	Mandatory	Description
project_id	Yes	**Definition** Project ID, which is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Table 5-9 Query parameter description

Parameter	Mandatory	Type	Description
namespace	No	String	**Definition** Service metric namespace. For details, see **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** The namespace must be in the service.item format. **service** and **item** must be strings, and each must start with a letter and contain only letters (case-insensitive), digits, and underscores (_). In addition, **service** cannot start with **SYS**, **AGT**, or **SRE**. **namespace** cannot be **SERVICE.BMS** because this namespace has been used by the system. The value can contain 3 to 32 characters. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_name	No	String	**Definition** Metric ID. For example, **metric_name** of ECS CPU usage is **cpu_util**. For details about the metrics of each service, see **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** The value must start with a letter and can contain only digits, letters (case-insensitive), underscores (_), and hyphens (-). For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. The value can contain 1 to 96 characters. **Default Value** N/A
dim	No	String	**Definition** Dimension of a metric. **Constraints** N/A **Range** A maximum of 4 dimensions are supported, numbered from 0 in the **dim.{i}=key,value** format. **key** cannot exceed 32 characters and **value** cannot exceed 256 characters. The following dimensions are only examples. For details about whether multiple dimensions are supported, see **Services Interconnected with Cloud Eye**. Single dimension: **dim.0=instance_id,i-12345** Multiple dimensions: **dim.0=instance_id,i-12345&dim.1=instance_name,i-1234** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
start	No	String	**Definition** Pagination start value. **Constraints** N/A **Range** The value is in the namespace.metric_name.key:value format. Example: **start=SYS.ECS.cpu_util.instance_id:d9112af5-6913-4f3b-bd0a-3f96711e004d**. **Default Value** N/A
limit	No	Integer	**Definition** Maximum number of records that can be queried at a time. **Constraints** N/A **Range** [1, 1,000] **Default Value** 1,000
order	No	String	**Definition** Result sorting method, which is sorted by timestamp. **Constraints** N/A **Range** The value can be: • **asc**: ascending order • **desc**: descending order **Default Value** asc

- Example requests

  Example request 1: Query all metrics that can be monitored.

  ```
  GET https://{Cloud Eye endpoint}/V1.0/{project_id}/metrics
  ```

  Example request 2: Query the CPU usage of the ECS whose ID is **6f3c6f91-4b24-4e1b-b7d1-a94ac1cb011d**. Retain 10 records in descending order by timestamp.

```
GET https://{Cloud Eye endpoint}/V1.0/{project_id}/metrics?
namespace=SYS.ECS&metric_name=cpu_util&dim.0=instance_id,6f3c6f91-4b24-4e1b-b7d1-
a94ac1cb011d&limit=10&order=desc
```

Request

None

Response

- Response parameters

Table 5-10 Parameter description

Parameter	Type	Description
metrics	Array of objects	**Definition** List of metric objects. For details, see **Table 5-11**.
meta_data	Object	**Definition** Metadata of query results, including the pagination information. For details, see **Table 5-13**.

Table 5-11 metrics data structure description

Parameter	Type	Description
namespace	String	**Definition** Namespace of the metric. **Range** N/A
dimensions	Array of objects	**Definition** List of metric dimensions. For details, see **Table 5-12**.
metric_name	String	**Definition** Metric name, such as **cpu_util**. **Range** N/A
unit	String	**Definition** Metric unit. **Range** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-12 dimensions data structure description

Parameter	Type	Description
name	String	**Definition** Monitoring dimension name. For example, the ECS dimension is **instance_id**. For details about the dimension of each service, see the **key** field in **Services Interconnected with Cloud Eye**. **Range** N/A
value	String	**Definition** Dimension value, for example, an ECS ID. **Range** N/A

Table 5-13 meta_data data structure description

Parameter	Type	Description
count	Integer	**Definition** Number of returned records. **Range** N/A
marker	String	**Definition** Start of the next page, which is used for pagination. For example, you have queried 10 records this time and the tenth record is about **cpu_util**. In your next query, if **start** is set to **cpu_util**, you can start your query from the next metric of **cpu_util**. **Range** N/A
total	Integer	**Definition** Total number of metrics. **Range** N/A

- Example response

```
{
  "metrics": [
    {
      "namespace": "SYS.ECS",
      "dimensions": [
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
            {
                "name": "instance_id",
                "value": "d9112af5-6913-4f3b-bd0a-3f96711e004d"
            }
        ],
        "metric_name": "cpu_util",
        "unit": "%"
    }
  ],
  "meta_data": {
    "count": 1,
    "marker": "SYS.ECS.cpu_util.instance_id:d9112af5-6913-4f3b-bd0a-3f96711e004d",
    "total": 7
  }
}
```


Returned Values

- Normal

  200
- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.3 Alarm Rules

5.3.1 Querying Alarm Rules (V1)

Function

You can query alarm rules and specify the paging parameters to limit the number of search results displayed on a page. You can also set the sorting order of search results. The alarm rule V1 API supports only single-resource single-policy rules.

You are advised to use **Querying Alarm Rules (Recommended)** to work with frontend functions.

URI

GET /V1.0/{project_id}/alarms

Table 5-14 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Table 5-15 Query Parameters

Parameter	Mandatory	Type	Description
start	No	String	**Definition**: Pagination start value. The value is **alarm_id**. **Constraints**: N/A **Range**: The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. It can contain a total of 24 characters. **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Number of records that can be returned. **Constraints**: N/A **Range**: (0,100] **Default Value**: **100**
order	No	String	**Definition**: Result sorting method, which is sorted by timestamp. **Constraints**: N/A **Range**: The value can be: • **asc**: ascending order • **desc**: descending order **Default Value**: **desc**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition**: Enterprise project ID. To query all enterprise projects, set this parameter to all_granted_eps. To query an enterprise project, set this parameter to the enterprise project ID. For details, see [Obtaining the Enterprise Project ID](ces_03_0061.xml). **Constraints**: None **Range**: The value can only contain lowercase letters, digits, hyphens (-), and underscores (_). It allows 36 characters. The value can also be 0 or all_granted_eps. The value can be 0 (default enterprise project ID) or all_granted_eps (all enterprise project IDs). **Default Value**: all_granted_eps

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 5-16 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

Response Parameters

Status code: 200

Table 5-17 Response body parameters

Parameter	Type	Description
metric_alarms	Array of **MetricAlarmsResp** objects	**Definition**: List of queried alarm objects.
meta_data	**MetaDataResp** object	**Definition**: Metadata of query results, including the pagination information.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-18 MetricAlarmsResp

Parameter	Type	Description
alarm_name	String	**Definition**: Alarm name. **Range**: The value allows 1 to 128 characters and can only contain digits, letters, underscores (_), and hyphens (-).
alarm_description	String	**Definition**: Alarm description. **Range**: [0,256]
metric	**ListAlarmMetricResp** object	**Definition**: Metric information in the created rule.
condition	**ConditionResp** object	**Definition**: Alarm policy configured in the alarm rule.
alarm_enabled	Boolean	**Definition**: Whether to enable the alarm rule. **Range**: A boolean value, which can be: **true**: enable **false**: disable
alarm_level	Integer	**Definition**: Alarm severity. **Range**: The value can be **1** (critical), **2** (major), **3** (minor), or **4** (informational).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_type	String	**Definition**: Alarm type. **Range**: For event alarms, the alarm type is **EVENT.SYS** (system events) or **EVENT.CUSTOM** (custom event). For alarms generated for resource groups, the alarm type is **RESOURCE_GROUP**. For alarms generated for specific resources, the alarm type is **MULTI_INSTANCE**. • **EVENT.SYS**: The alarm rule is created for system events. • **EVENT.CUSTOM**: The alarm rule is created for custom events. • **RESOURCE_GROUP**: The alarm rule is created for resource groups. • **MULTI_INSTANCE**: The alarm rule is created for specific resources.
alarm_action_enabled	Boolean	**Definition**: Whether to enable alarm notifications when the alarm is triggered. **Range**: A boolean value, which can be: • **true**: enable • **false**: disable
alarm_actions	Array of **NotificationResp** objects	**Definition**: Information about the notification group or topic subscription when an alarm is triggered. A structure example is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }
ok_actions	Array of **NotificationResp** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared. An example structure is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
insufficientdata_actions	Array of NotificationResp objects	**Definition**: Notification group or topic subscription when an alarm notification is triggered due to insufficient data. A structure example is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }
alarm_action_begin_time	String	**Definition**: Time when an alarm rule is applied. Notifications are sent only within the validity period of the alarm rule. For example, if **alarm_action_begin_time** is set to **08:00** and **alarm_action_end_time** is set to **20:00**, notifications are sent only from 08:00 to 20:00. **Range**: The value allows 1 to 64 characters and can only contain digits and colons (:).
alarm_action_end_time	String	**Definition**: Time when an alarm rule becomes invalid. For example, if **alarm_action_begin_time** is set to **08:00** and **alarm_action_end_time** is set to **20:00**, notifications are sent only from 08:00 to 20:00. **Range**: The value allows 1 to 64 characters and can only contain digits and colons (:).
effective_timezone	String	**Definition**: Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Range**: 1 to 16 characters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_id	String	**Definition**: Alarm rule ID. **Range**: The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. It can contain a total of 24 characters.
update_time	Long	**Definition**: Time when the alarm status changed. The value is a UNIX timestamp in milliseconds. **Range** 0 - 9999999999999
alarm_state	String	**Definition**: Alarm status. **Range**: The value can only be **ok**, **alarm**, or **insufficient_data**. It allows 0 to 17 characters. ● **ok**: normal ● **alarm**: active ● **insufficient_data**: insufficient data
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: The value allows 36 characters and can only contain lowercase letters, digits, hyphens (-), and underscores (_). The value can also be **0** (default enterprise project ID) or **all_granted_eps** (all enterprise project IDs).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-19 ListAlarmMetricResp

Parameter	Type	Description
namespace	String	**Definition**: Metric namespace. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. For the namespace of each service, see **Service Namespaces**. **Range**: The value must be in the service.item format and contain 3 to 32 characters. **service** and **item** each must start with a letter and contain only letters, digits, and underscores (_).
dimensions	Array of **DimensionResp** objects	**Definition**: Metric dimension. A maximum of four dimensions can be added.
metric_name	String	**Definition**: Metric name of a resource. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. For details about the metrics of each service, see **Service Metric Names**. **Range**: The value must start with a letter and allow 1 to 96 characters. It can only contain letters, digits, and underscores (_).
resource_group_id	String	**Definition**: ID of the resource group selected during the alarm rule creation, for example, **rg1603786526428bWbVmk4rP**. **Range**: The value can contain 1 to 64 characters and can only contain letters, digits, hyphens (-), and underscores (_).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
resource_group_name	String	**Definition**: Name of the resource group selected during the alarm rule creation, for example, **Resource-Group-ECS-01**. **Range**: [0,128]

Table 5-20 DimensionResp

Parameter	Type	Description
name	String	**Definition**: Monitoring dimension name. For example, the dimension of an ECS is **instance_id**. For details about the metric dimension name of each service resource, see **Service Dimension Names**. **Range**: The value must start with a letter and can only contain letters, digits, underscores (_), and hyphens (-). It allows 1 to 32 characters.
value	String	**Definition**: Monitoring dimension value, for example, the ECS ID. **Range**: [0,256]

Table 5-21 ConditionResp

Parameter	Type	Description
comparison_operator	String	**Definition**: Operator of an alarm threshold. **Range**: **NOTE** , =, <, >=, <=, or !=

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
count	Integer	**Definition**: Number of consecutive times that an alarm is triggered. **Range**: The value ranges from **1** to **5**. For event alarms, the value ranges from **1** to **100**.
filter	String	**Definition**: Data aggregation method. **Range**: The value can be: • **average** • **variance** • **min**: minimum value • **max**: maximum value • **sum**
period	Integer	**Definition**: Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Range**: The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
unit	String	**Definition**: Data unit. **Range**: [0,32]
value	Number	**Definition**: Specifies the alarm threshold. For details about the threshold value, see the value range of each service monitoring metric in the appendix. For example, the value range of cpu_util for ECS in [Services That Can Be Monitored] (ces_03_0059.xml) can be set to 80. **Range**: The minimum value is -1.7976931348623157e+108, and the maximum value is 1.7976931348623157e+108.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
suppress_duration	Integer	**Definition**: Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Range**: The value can be: ● **0**: A metric alarm is generated only once. An event alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. ● **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. ● **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. ● **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. ● **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. ● **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. ● **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. ● **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. ● **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. ● **86000**: An alarm is generated once every day once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-22 NotificationResp

Parameter	Type	Description
type	String	**Definition**: Alarm notification type. **Range**: **notification** (SMN notifications) or **autoscaling** (AS notifications)
notificationList	Array of strings	**Definition**: Recipients to be notified of the alarm status changes.

Table 5-23 MetaDataResp

Parameter	Type	Description
count	Integer	**Definition**: Number of records that can be returned. **Range** 0 - 2147483647
total	Integer	**Definition**: Total number of query results. **Range**: 0 - 2147483647
marker	String	**Definition**: Start of the next page, which is used for pagination. For example, you have queried 10 records this time and **alarm_id** of the tenth record is **1441967036681YkazZ0deN**. In your next query, if **start** is set to **al1441967036681YkazZ0deN**, you can start your query from the next alarm rule ID of **al1441967036681YkazZ0deN**. **Range**: 1 - 9999

Status code: 400

Table 5-24 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-25 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-26 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

Table 5-27 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-28 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-29 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-30 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

- Request example 1: Query the current alarm rule list.

  /V1.0/{project_id}/alarms?start=al1441967036681YkazZ0deN&limit=10&order=desc

- Request example 3: Query the alarm rule list. Start by setting **alarm_id** to **al1441967036681YkazZ0deN** and retain 10 records in the descending order by timestamp.

  GET https://{Cloud Eye endpoint}/V1.0/{project_id}/alarms?start=al1441967036681YkazZ0deN&limit=10&order=desc

Example Responses

Status code: 200

OK

```
{
  "metric_alarms" : [ {
    "alarm_id" : "al1604473956229Ym1m1Wx6e",
    "alarm_name" : "alarm-rp0E",
    "alarm_description" : "",
    "metric" : {
      "namespace" : "SYS.ECS",
      "dimensions" : [ {
        "name" : "instance_id",
        "value" : "33328f02-3814-422e-b688-bfdba93d4051"
      } ],
      "metric_name" : "network_outgoing_bytes_rate_inband"
    },
    "condition" : {
      "period" : 300,
      "filter" : "average",
      "comparison_operator" : ">=",
      "value" : 6,
      "unit" : "B/s",
      "count" : 1
    },
    "alarm_level" : 2,
    "alarm_enabled" : true,
    "alarm_action_enabled" : true,
    "alarm_actions" : [ {
      "type" : "notification",
      "notificationList" : [ "urn:smn:southchina:68438a86d98e427e907e0097b7e35d48:sd" ]
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
  } ],
  "ok_actions" : [ {
    "type" : "notification",
    "notificationList" : [ "urn:smn:southchina:68438a86d98e427e907e0097b7e35d48:sd" ]
  } ],
  "insufficientdata_actions" : [ ],
  "update_time" : 1604473956000,
  "alarm_state" : "insufficient_data",
  "enterprise_project_id" : "0"
 }, {
  "alarm_id" : "al1604426791923xQaE8OEXx",
  "alarm_name" : "alarm-5348",
  "alarm_description" : "",
  "metric" : {
    "namespace" : "AGT.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "22d98f6c-16d2-4c2d-b424-50e79d82838f"
    } ],
    "metric_name" : "disk_read_bytes_per_operation"
  },
  "condition" : {
    "period" : 1,
    "filter" : "average",
    "comparison_operator" : ">=",
    "value" : 30,
    "unit" : "KB/op",
    "count" : 3,
    "suppress_duration" : 86400
  },
  "alarm_level" : 2,
  "alarm_type" : "MULTI_INSTANCE",
  "alarm_enabled" : true,
  "alarm_action_enabled" : false,
  "alarm_actions" : [ ],
  "ok_actions" : [ ],
  "insufficientdata_actions" : [ ],
  "update_time" : 1604426791000,
  "alarm_state" : "insufficient_data",
  "enterprise_project_id" : "0"
 } ],
 "meta_data" : {
  "count" : 2,
  "marker" : "",
  "total" : 2
 }
}
```


Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Code	Description
503	Service Unavailable

Error Codes

See **Error Codes**.

5.3.2 Querying an Alarm Rule

Function

This API is used to query details of an alarm rule based on its ID.

URI

GET /V1.0/{project_id}/alarms/{alarm_id}

Table 5-31 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_id	Yes	String	**Definition**: Alarm rule ID. **Constraints**: N/A **Range**: The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. It contains 24 characters. **Default Value**: N/A

Request Parameters

Table 5-32 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 5-33 Response body parameters

Parameter	Type	Description
metric_alarms	Array of **MetricAlarmsResp** objects	**Definition**: List of alarm objects.

Table 5-34 MetricAlarmsResp

Parameter	Type	Description
alarm_name	String	**Definition**: Alarm name. **Range**: The value allows 1 to 128 characters and can only contain digits, letters, underscores (_), and hyphens (-).
alarm_description	String	**Definition**: Alarm description. **Range**: [0,256]
metric	**ListAlarmMetricResp** object	**Definition**: Metric information in the created rule.
condition	**ConditionResp** object	**Definition**: Alarm policy configured in the alarm rule.
alarm_enabled	Boolean	**Definition**: Whether to enable the alarm rule. **Range**: A boolean value, which can be: **true**: enable **false**: disable
alarm_level	Integer	**Definition**: Alarm severity. **Range**: The value can be **1** (critical), **2** (major), **3** (minor), or **4** (informational).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_type	String	**Definition**: Alarm type. **Range**: For event alarms, the alarm type is **EVENT.SYS** (system events) or **EVENT.CUSTOM** (custom event). For alarms generated for resource groups, the alarm type is **RESOURCE_GROUP**. For alarms generated for specific resources, the alarm type is **MULTI_INSTANCE**. • **EVENT.SYS**: The alarm rule is created for system events. • **EVENT.CUSTOM**: The alarm rule is created for custom events. • **RESOURCE_GROUP**: The alarm rule is created for resource groups. • **MULTI_INSTANCE**: The alarm rule is created for specific resources.
alarm_action_enabled	Boolean	**Definition**: Whether to enable alarm notifications when the alarm is triggered. **Range**: A boolean value, which can be: • **true**: enable • **false**: disable
alarm_actions	Array of **NotificationResp** objects	**Definition**: Information about the notification group or topic subscription when an alarm is triggered. A structure example is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }
ok_actions	Array of **NotificationResp** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared. An example structure is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
insufficientdata_actions	Array of NotificationResp objects	**Definition**: Notification group or topic subscription when an alarm notification is triggered due to insufficient data. A structure example is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }
alarm_action_begin_time	String	**Definition**: Time when an alarm rule is applied. Notifications are sent only within the validity period of the alarm rule. For example, if **alarm_action_begin_time** is set to **08:00** and **alarm_action_end_time** is set to **20:00**, notifications are sent only from 08:00 to 20:00. **Range**: The value allows 1 to 64 characters and can only contain digits and colons (:).
alarm_action_end_time	String	**Definition**: Time when an alarm rule becomes invalid. For example, if **alarm_action_begin_time** is set to **08:00** and **alarm_action_end_time** is set to **20:00**, notifications are sent only from 08:00 to 20:00. **Range**: The value allows 1 to 64 characters and can only contain digits and colons (:).
effective_timezone	String	**Definition**: Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Range**: 1 to 16 characters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_id	String	**Definition**: Alarm rule ID. **Range**: The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. It can contain a total of 24 characters.
update_time	Long	**Definition**: Time when the alarm status changed. The value is a UNIX timestamp in milliseconds. **Range** 0 - 9999999999999
alarm_state	String	**Definition**: Alarm status. **Range**: The value can only be **ok**, **alarm**, or **insufficient_data**. It allows 0 to 17 characters. ● **ok**: normal ● **alarm**: active ● **insufficient_data**: insufficient data
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: The value allows 36 characters and can only contain lowercase letters, digits, hyphens (-), and underscores (_). The value can also be **0** (default enterprise project ID) or **all_granted_eps** (all enterprise project IDs).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-35 ListAlarmMetricResp

Parameter	Type	Description
namespace	String	**Definition**: Metric namespace. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. For the namespace of each service, see **Service Namespaces**. **Range**: The value must be in the service.item format and contain 3 to 32 characters. **service** and **item** each must start with a letter and contain only letters, digits, and underscores (_).
dimensions	Array of **DimensionResp** objects	**Definition**: Metric dimension. A maximum of four dimensions can be added.
metric_name	String	**Definition**: Metric name of a resource. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. For details about the metrics of each service, see **Service Metric Names**. **Range**: The value must start with a letter and allow 1 to 96 characters. It can only contain letters, digits, and underscores (_).
resource_group_id	String	**Definition**: ID of the resource group selected during the alarm rule creation, for example, **rg1603786526428bWbVmk4rP**. **Range**: The value can contain 1 to 64 characters and can only contain letters, digits, hyphens (-), and underscores (_).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
resource_group_name	String	**Definition**: Name of the resource group selected during the alarm rule creation, for example, **Resource-Group-ECS-01**. **Range**: [0,128]

Table 5-36 DimensionResp

Parameter	Type	Description
name	String	**Definition**: Monitoring dimension name. For example, the dimension of an ECS is **instance_id**. For details about the metric dimension name of each service resource, see **Service Dimension Names**. **Range**: The value must start with a letter and can only contain letters, digits, underscores (_), and hyphens (-). It allows 1 to 32 characters.
value	String	**Definition**: Monitoring dimension value, for example, the ECS ID. **Range**: [0,256]

Table 5-37 ConditionResp

Parameter	Type	Description
comparison_operator	String	**Definition**: Operator of an alarm threshold. **Range**: **NOTE** , =, <, >=, <=, or !=

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
count	Integer	**Definition**: Number of consecutive times that an alarm is triggered. **Range**: The value ranges from **1** to **5**. For event alarms, the value ranges from **1** to **100**.
filter	String	**Definition**: Data aggregation method. **Range**: The value can be: • **average** • **variance** • **min**: minimum value • **max**: maximum value • **sum**
period	Integer	**Definition**: Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Range**: The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
unit	String	**Definition**: Data unit. **Range**: [0,32]
value	Number	**Definition**: Specifies the alarm threshold. For details about the threshold value, see the value range of each service monitoring metric in the appendix. For example, the value range of cpu_util for ECS in [Services That Can Be Monitored] (ces_03_0059.xml) can be set to 80. **Range**: The minimum value is -1.7976931348623157e+108, and the maximum value is 1.7976931348623157e+108.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
suppress_duration	Integer	**Definition**: Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Range**: The value can be: ● **0**: A metric alarm is generated only once. An event alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. ● **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. ● **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. ● **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. ● **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. ● **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. ● **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. ● **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. ● **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. ● **86000**: An alarm is generated once every day once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-38 NotificationResp

Parameter	Type	Description
type	String	**Definition**: Alarm notification type. **Range**: **notification** (SMN notifications) or **autoscaling** (AS notifications)
notificationList	Array of strings	**Definition**: Recipients to be notified of the alarm status changes.

Status code: 400

Table 5-39 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-40 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-41 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-42 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-43 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

Table 5-44 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-45 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
/V1.0/{project_id}/alarms/al1441967036681YkazZ0deN
```

Example Responses

Status code: 200

OK

```
{
  "metric_alarms" : [ {
    "alarm_id" : "al1604473956229Ym1m1Wx6e",
    "alarm_name" : "alarm-rp0E",
    "alarm_description" : "",
    "metric" : {
      "namespace" : "SYS.ECS",
      "dimensions" : [ {
        "name" : "instance_id",
```

```
      "value" : "33328f02-3814-422e-b688-bfdba93d4051"
    } ],
    "metric_name" : "network_outgoing_bytes_rate_inband"
  },
  "condition" : {
    "period" : 300,
    "filter" : "average",
    "comparison_operator" : ">=",
    "value" : 6,
    "unit" : "B/s",
    "count" : 1
  },
  "alarm_level" : 2,
  "alarm_enabled" : true,
  "alarm_action_enabled" : true,
  "alarm_actions" : [ {
    "type" : "notification",
    "notificationList" : [ "urn:smn:southchina:68438a86d98e427e907e0097b7e35d48:sd" ]
  } ],
  "ok_actions" : [ {
    "type" : "notification",
    "notificationList" : [ "urn:smn:southchina:68438a86d98e427e907e0097b7e35d48:sd" ]
  } ],
  "insufficientdata_actions" : [ {
    "type" : "notification",
    "notificationList" : [ "urn:smn:southchina:68438a86d98e427e907e0097b7e35d48:sd" ]
  } ],
  "update_time" : 1604473956000,
  "alarm_state" : "insufficient_data",
  "enterprise_project_id" : "0"
 } ]
}
```


Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

5.3.3 Enabling or Disabling an Alarm Rule

Function

This API is used to enable or disable an alarm rule.

URI

PUT /V1.0/{project_id}/alarms/{alarm_id}/action

- Parameter description

  Table 5-46 Parameter description

Parameter	Mandatory	Description
project_id	Yes	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
alarm_id	Yes	**Definition** Alarm rule ID. **Constraints** N/A **Range** The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. The value can contain a maximum of 24 characters. **Default Value** N/A

- Example
  PUT https://{Cloud Eye endpoint}/V1.0/{project_id}/alarms/al1441967036681YkazZ0deN/action

Request

- Request parameters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-47 Request parameters

Parameter	Mandatory	Type	Description
alarm_enabled	Yes	Boolean	**Definition** Whether to enable the alarm rule. **Constraints** N/A **Range** A boolean value, which can be **true** (enabled) or **false** (disabled). **Default Value** N/A

- Example request

```
{
   "alarm_enabled":true
}
```

Response

The response has no message body.

Returned Values

- Normal

  204

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Error Codes

See **Error Codes**.

5.3.4 Deleting an Alarm Rule

Function

This API is used to delete an alarm rule.

URI

DELETE /V1.0/{project_id}/alarms/{alarm_id}

- Parameter description

  Table 5-48 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.
alarm_id	Yes	Specifies the alarm rule ID.

- Example

```
DELETE https://{Cloud Eye endpoint}/V1.0/{project_id}/alarms/al1441967036681YkazZ0deN
```

Request

The request has no message body.

Response

The response has no message body.

Returned Values

- Normal

  204

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Returned Value	Description
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.3.5 Creating an Alarm Rule (V1)

Function

This API is used to create an alarm rule. The V1 API for creating alarm rules supports only single-resource single-policy rules. You are advised to use [CreateAlarmRules (Recommended)] (CreateAlarmRules.xml) to create alarm rules.

URI

POST /V1.0/{project_id}/alarms

Table 5-49 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 5-50 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-51 Request body parameters

Parameter	Mandatory	Type	Description
alarm_name	Yes	String	**Definition**: Alarm name. **Constraints**: N/A **Range**: The value allows 1 to 128 characters and can only contain digits, letters, underscores (_), and hyphens (-). **Default Value**: N/A
alarm_description	No	String	**Definition**: Alarm description. **Constraints**: N/A **Range**: [0,256] **Default Value**: N/A
metric	Yes	**CreateAlarmMetric** object	**Definition**: Metric information in the created rule. **Constraints**: N/A
condition	Yes	**Condition** object	**Definition**: Alarm policy configured in the alarm rule. **Constraints**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_enabled	No	Boolean	**Definition**: Whether to enable the alarm rule. **Constraints**: N/A **Range**: A boolean value, which can be: • **true**: enable • **false**: disable **Default Value**: true
alarm_action_enabled	No	Boolean	**Definition**: Whether to enable alarm notifications when the alarm is triggered. **Constraints**: If **alarm_action_enabled** is set to **true**, **alarm_actions**, **ok_actions**, or both of them must be specified. If both **alarm_actions** and **ok_actions** are specified, their **notification_list** values must be the same. **Range**: A boolean value, which can be: • **true**: enable • **false**: disable **Default Value**: true

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_level	No	Integer	**Definition**: Alarm severity. **Constraints**: N/A **Range**: The value can only be **1** (critical), **2** (major), **3** (minor), or **4** (informational). **Default Value**: 2
alarm_type	No	String	**Definition**: Alarm type. **Constraints**: For event alarms, the alarm type is **EVENT.SYS** (system events) or **EVENT.CUSTOM** (custom event). For alarms generated for resource groups, the alarm type is **RESOURCE_GROUP**. For alarms generated for specific resources, the alarm type is **MULTI_INSTANCE**. **Range**: • **EVENT.SYS**: The alarm rule is created for system events. • **EVENT.CUSTOM**: The alarm rule is created for custom events. • **RESOURCE_GROUP**: The alarm rule is created for resource groups. • **MULTI_INSTANCE**: The alarm rule is created for multiple instances. **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_actions	No	Array of **Notification** objects	**Definition**: Information about the notification group or topic subscription when an alarm is triggered. A structure example is as follows: { "type": "notification","notificationList" : ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }. The value of **type** can be **notification** (SMN notifications) or **autoscaling** (AS notifications). **Constraints**: A maximum of 10 recipients are allowed.
insufficientdata_actions	No	Array of **Notification** objects	**Definition**: Notification group or topic subscription when an alarm notification is triggered due to insufficient data. (This parameter has been deprecated and does not need to be configured.) **Constraints**: A maximum of 10 alarm actions can be configured.
ok_actions	No	Array of **Notification** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared. A structure example is as follows: { "type": "notification","notificationList" : ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }. The value of **type** can be **notification** (SMN notifications) or **autoscaling** (AS notifications). **Constraints**:

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_action_begin_time	No	String	**Definition**: Time when alarm notifications were enabled. **Constraints**: N/A **Range**: The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value**: N/A
alarm_action_end_time	No	String	**Definition**: Time when alarm notifications were disabled. **Constraints**: N/A **Range**: The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-52 CreateAlarmMetric

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition**: Metric namespace. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. For the namespace of each service, see **Service Namespaces**. **Constraints**: When **alarm_type**is set to **EVENT.SYS** or **EVENT.CUSTOM**, you can leave this parameter empty. **Range**: The value must be in the service.item format and contain 3 to 32 characters. **service** and **item** each must start with a letter and contain only letters, digits, and underscores (_). **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition**: Metric name of a resource. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. For details about the metrics of each service, see **Service Metric Names**. **Constraints**: N/A **Range**: The value must start with a letter and allow 1 to 96 characters. It can only contain letters, digits, and underscores (_). **Default Value**: N/A
dimensions	No	Array of **Dimension** objects	**Definition**: Metric dimension. **Constraints**: A maximum of four dimensions can be added. If **resource_group_id** is not required, **dimensions** is mandatory.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
resource_group_id	No	String	**Definition**: ID of the resource group selected during the alarm rule creation. **Constraints**: If you create alarm rules for resource groups, you must specify **resource_group_id** and **name**, enter at least one dimension for **dimensions**, and set **alarm_type** to **RESOURCE_GROUP**, for example, **rg1603786526428bWbVmk4rP**. **Range**: The value allows 0 to 64 characters and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-53 Dimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Monitoring dimension name. For example, the dimension of an ECS is **instance_id**. For details about the metric dimension name of each service resource, see **Service Dimension Names**. **Constraints**: N/A **Range**: The value must start with a letter and can only contain letters, digits, underscores (_), and hyphens (-). It allows 1 to 32 characters. **Default Value**: N/A
value	No	String	**Definition**: Monitoring dimension value, for example, the ECS ID. **Constraints**: N/A **Range**: [0,256] **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-54 Condition

Parameter	Mandatory	Type	Description
comparison_operator	Yes	String	**Definition**: Operator of an alarm threshold. **Constraints**: N/A **Range**: **NOTE** , =, <, >=, <=, or != **Default Value**: N/A
count	Yes	Integer	**Definition**: Number of consecutive times that an alarm is triggered. **Constraints**: N/A **Range**: The value ranges from **1** to **5**. For event alarms, the value ranges from **1** to **100**. **Default Value**: N/A
filter	Yes	String	**Definition**: Data aggregation method. **Constraints**: N/A **Range**: The value can be: • **average** • **variance** • **min**: minimum value • **max**: maximum value • **sum** **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
period	Yes	Integer	**Definition** Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Constraints** N/A **Range** The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
unit	No	String	**Definition**: Data unit. **Constraints**: N/A **Range**: [0,32] **Default Value**: N/A
value	Yes	Number	**Definition**: Specifies the alarm threshold. For details about the threshold value, see the value range of each service monitoring metric in the appendix. For example, the value range of cpu_util for ECS in [Services That Can Be Monitored] (ces_03_0059.xml) can be set to 80. **Constraints**: If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range**: The minimum value is -1.7976931348623157e+108, and the maximum value is 1.7976931348623157e+108. **Default Value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-55 Notification

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition**: Alarm notification type. **Constraints**: N/A **Range**: **notification** (SMN notifications) or **autoscaling** (AS notifications) **Default Value**: N/A
notificationList	Yes	Array of strings	**Definition**: Recipients to be notified of the alarm status changes. **Constraints**: A maximum of 20 recipients can be configured. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics". If **type** is set to **notification**, the value of **notificationList** cannot be left blank. If **type** is set to **autoscaling**, the value of **notificationList** must be left blank. Note: If **alarm_action_enabled** is set to **true**, you must specify either **alarm_actions** or **ok_actions**. (You do not need to configure the deprecated parameter **insufficientdata_actions**.) If **alarm_actions** and **ok_actions** coexist, their **notificationList** values must be the same. (You do not need to configure the deprecated parameter **insufficientdata_actions**.)

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 201

Table 5-56 Response body parameters

Parameter	Type	Description
alarm_id	String	Alarm rule ID.

Status code: 400

Table 5-57 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-58 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-59 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

Table 5-60 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-61 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

Table 5-62 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-63 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
{
  "alarm_name" : "alarm-rp0E",
  "alarm_description" : "",
  "metric" : {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "33328f02-3814-422e-b688-bfdba93d4051"
    } ],
    "metric_name" : "network_outgoing_bytes_rate_inband"
  },
  "condition" : {
    "period" : 300,
    "filter" : "average",
    "comparison_operator" : ">=",
    "value" : 6,
    "unit" : "B/s",
    "count" : 1
  },
  "alarm_enabled" : true,
  "alarm_action_enabled" : true,
  "alarm_level" : 2,
  "alarm_actions" : [ {
    "type" : "notification",
    "notificationList" : [ "urn:smn:southchina:68438a86d98e427e907e0097b7e35d48:sd" ]
  } ],
  "ok_actions" : [ {
    "type" : "notification",
    "notificationList" : [ "urn:smn:southchina:68438a86d98e427e907e0097b7e35d48:sd" ]
  } ],
  "insufficientdata_actions" : [ {
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
    "type" : "notification",
    "notificationList" : [ "urn:smn:southchina:68438a86d98e427e907e0097b7e35d48:sd" ]
  } ]
}
```

Example Responses

Status code: 201

Created

```
{
  "alarm_id" : "al1604473956229Ym1m1Wx6e"
}
```

Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

5.3.6 Creating a Custom Alarm Template

Function

This API is used to create a custom alarm template to add alarm rules for one or more metrics.

URI

POST /V1.0/{project_id}/alarm-template

- Parameter description

Table 5-64 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.

- Example
  POST https://{Cloud Eye endpoint}/V1.0/{project_id}/alarm-template

Request

- Request parameters

Table 5-65 Request parameters

Parameter	Mandatory	Type	Description
template_name	Yes	String	Specifies the name of the custom alarm template. The name can contain 1 to 128 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
template_description	No	String	Provides supplementary information about the custom alarm template. The description can contain 0 to 256 characters.
namespace	Yes	String	Specifies the resource type selected for creating the custom alarm template, that is, the service namespace. For example, if you select ECS, **namespace** is **SYS.ECS**. **NOTICE** If you select OS monitoring, **namespace** must be **SYS.ECS**.
dimension_name	Yes	String	Specifies the dimension corresponding to the resource type. If ECS is selected, the dimension is ECS and **dimension_name** is **instance_id**.
template_items	Yes	Array of objects	Specifies the alarm rules that you add to the custom alarm template. You can add up to 20 alarm rules.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-66 template_items data structure description

Parameter	Mandatory	Type	Description
metric_name	Yes	String	Specifies the metric you add to the custom alarm template. For example, you can add ECS **cpu_util**. To view metrics of each resource, see **Services Interconnected with Cloud Eye**.
condition	Yes	Condition object	Specifies the alarm policy you created for the custom alarm template. For details, see **Table 5-67**.
alarm_level	No	Integer	Specifies the alarm severity. Possible severities are **1** (critical), **2** (major), **3** (minor), and **4** (informational).

Table 5-67 condition data structure description

Parameter	Mandatory	Type	Description
comparison_operator	Yes	String	Specifies the alarm threshold operator, which can be >, =, <, >=, or <=.
count	Yes	Integer	Specifies the number of consecutive occurrence times that the alarm policy was met. Supported range: **1** to **5**
filter	Yes	String	Specifies the data rollup method, which can be **max**, **min**, **average**, **sum**, or **variance**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
period	Yes	Integer	Specifies the period during which Cloud Eye determines whether to trigger an alarm. Unit: second Possible periods are **1**, **300**, **1200**, **3600**, **14400**, and **86400**. **NOTE** If you set **period** to **1**, Cloud Eye uses raw data to determine whether to trigger an alarm. You can set this parameter to **0** when you set **alarm_type** to **(EVENT.SYS|EVENT.CUSTOM)**.
unit	No	String	Specifies the data unit. Enter up to 32 characters.
value	Yes	Double	Specifies the alarm threshold, which ranges from **0** to **Number.MAX_VALUE (1.7976931348623157e+108)**. For detailed thresholds, see the value range of each metric in **Services Interconnected with Cloud Eye**. For example, you can set ECS **cpu_util** to **80**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
suppress_duration	No	Integer	Specifies the interval for triggering an alarm if the alarm persists. Possible intervals are as follows: **0**: Cloud Eye triggers the alarm only once. **300**: Cloud Eye triggers the alarm every 5 minutes. **600**: Cloud Eye triggers the alarm every 10 minutes. **900**: Cloud Eye triggers the alarm every 15 minutes. **1800**: Cloud Eye triggers the alarm every 30 minutes. **3600**: Cloud Eye triggers the alarm every 1 hour. **10800**: Cloud Eye triggers the alarm every 3 hours. **21600**: Cloud Eye triggers the alarm every 6 hours. **43200**: Cloud Eye triggers the alarm every 12 hours. **86400**: Cloud Eye triggers the alarm every day.

- Example request

```
{
   "template_name": "alarmTemplate-Test01",
   "template_description": "Creating a custom alarm template",
   "namespace": "SYS.ECS",
   "dimension_name": "instance_id",
   "template_items": [
      {
         "metric_name": "cpu_util",
         "condition": {
            "period": 1,
            "filter": "average",
            "comparison_operator": ">=",
            "value": 90,
            "unit": "%",
            "count": 3,
            "suppress_duration": 300
          },
         "alarm_level": 2
      },
      {
         "metric_name": "mem_util",
         "condition": {
            "period": 1,
            "filter": "average",
            "comparison_operator": ">=",
            "value": 90,
            "unit": "%",
```

```
            "count": 3,
            "suppress_duration": 600
        },
        "alarm_level": 2
    }
  ]
}
```

Response

- Response parameters

  Table 5-68 Response parameters

Parameter	Type	Description
template_id	String	Specifies the ID of the custom alarm template.

- Example response

```
{
   "template_id":"at1603252280799wLRyGLxnz"
}
```

Returned Values

- Normal

  201

- Abnormal

Returned Values	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

5.3.7 Deleting a Custom Alarm Template

Function

This API is used to delete a custom alarm template.

URI

DELETE /V1.0/{project_id}/alarm-template/{template_id}

- Parameter description

  Table 5-69 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.
template_id	Yes	Specifies the ID of the custom alarm template you want to delete.

- Example
  DELETE https://{Cloud Eye endpoint}/V1.0/{project_id}/alarm-template/at1603252280799wLRyGLxnz

Request

The request has no message body.

Response

The response has no message body.

Returned Values

- Normal

  204

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Returned Value	Description
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.3.8 Querying Alarm History

Function

This API is used to query the alarm history.

URI

GET /V1.0/{project_id}/alarm-histories

Table 5-70 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-71 Query Parameters

Parameter	Mandatory	Type	Description
group_id	No	String	**Definition**: Information about the group that the current resource belongs to. **Constraints**: N/A **Range**: The value starts with **rg** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value**: N/A
alarm_id	No	String	**Definition**: Alarm rule ID. **Constraints**: N/A **Range**: The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value**: N/A
alarm_name	No	String	**Definition**: Alarm rule name. **Constraints**: N/A **Range**: The value allows 1 to 128 characters and can only contain digits, letters, underscores (_), and hyphens (-). **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_status	No	String	**Definition**: Alarm status. The options are **ok**, **alarm**, **insufficient_data**, and **invalid**. **Constraints**: N/A **Range**: The value can be **ok**, **alarm**, **insufficient_data**, or **invalid**. **Default Value**: N/A
alarm_level	No	Integer	**Definition**: Severity of the alarm record. The value can be **1**, **2**, **3**, or **4**. **Constraints**: N/A **Range**: The value can be **1** (critical), ** 2** (major), **3** (minor), or **4** (informational). **Default Value**: N/A
namespace	No	String	**Definition**: Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints**: N/A **Range**: The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). It must contain 3 to 32 characters. **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
from	No	String	**Definition**: Start time of a time range used for filtering traces by time (excluding the time the traces were imported). The value is a timestamp. **Constraints**: N/A **Range**: [1,13] **Default Value**: N/A
to	No	String	**Definition**: End time of a time range used for filtering traces by time (excluding the time the traces were imported). The value is a timestamp. **Constraints**: N/A **Range**: [1,13] **Default Value**: N/A
start	No	String	**Definition**: Start position for pagination query, indicating the sequence number of the data record where the query starts. **Constraints**: N/A **Range**: ^(0|[1-9][0-9]*)$ **Default Value**: 0

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Maximum number of records being queried. **Constraints**: N/A **Range**: [1,100] **Default Value**: 100

Request Parameters

Table 5-72 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 5-73 Response body parameters

Parameter	Type	Description
alarm_histories	Array of **AlarmHistoryInfo** objects	Details about one or more alarm history records.
meta_data	**MetaDataForAlarmHistory** object	Total number of returned alarm history records.

Table 5-74 AlarmHistoryInfo

Parameter	Type	Description
alarm_id	String	Alarm rule ID, for example, **al1603131199286dzxpqK3Ez**.
alarm_name	String	Alarm rule name, for example, **alarm-test01**.
alarm_description	String	Alarm rule description.
metric	**MetricInfo** object	Metric information.
condition	**Condition** object	**Definition**: Alarm policy configured in the alarm rule. **Constraints**: N/A
alarm_level	Integer	Severity of the alarm record. The value can be **1** (critical), **2** (major), **3** (minor), or **4** (informational).
alarm_type	String	Alarm type. This parameter is valid only for event alarms. The value can be **EVENT.SYS** or **EVENT.CUSTOM**.
alarm_enabled	Boolean	Whether the alarm rule has been enabled. The value can be **true** or **false**.
alarm_action_enabled	Boolean	Whether the alarm action has been triggered. The value can be **true** or **false**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_actions	Array of **AlarmActions** objects	Action to be triggered by an alarm. A structure example is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] } The **type** value can be **notification** (a notification action will be triggered) or **autoscaling** (a scaling action will be triggered). **notificationList** indicates the recipients to be notified of the alarm status changes.
ok_actions	Array of **AlarmActions** objects	Action to be triggered after an alarm is cleared. A structure example is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] } The value of **type** can be **notification** (a notification action will be triggered). **notificationList** indicates list of recipients to be notified of alarm status changes.
insufficientdata_actions	Array of **AlarmActions** objects	Action triggered due to insufficient data. A structure example is as follows: { "type": "notification", "notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] } **type**indicates that the alarm notification is triggered due to insufficient data and its value is **notification**. **notificationList** indicates IDs of the recipients for receiving alarm notifications triggered due to insufficient data.
update_time	Long	Time when the alarm status changed. The value is a UNIX timestamp in milliseconds, for example, **1603131199000**.
enterprise_project_id	String	Enterprise project ID. The value can be **all_granted_eps** (all enterprise projects) or **0** (default enterprise project).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
trigger_time	Long	Time when the monitoring data of the alarm history was reported. The value is a UNIX timestamp in milliseconds, for example, **1603131199469**.
alarm_status	String	Alarm status, which can be **ok**, **alarm**, or **insufficient_data**.
datapoints	Array of **DataPointForAlarmHistory** objects	An array of data about the time when the monitoring data of the alarm history is reported and the monitoring metric values that are calculated.
additional_info	**AdditionalInfo** object	Additional field of the alarm history, which applies only to the alarm history generated for event monitoring.
notification_manner	String	Notification method. **NOTIFICATION_POLICY** indicates notification policies, **NOTIFICATION_GROUP** indicates notification groups, and **TOPIC_SUBSCRIPTION** indicates topic subscriptions.

Table 5-75 MetricInfo

Parameter	Type	Description
namespace	String	Metric namespace, which must be in the service.item format and contain 3 to 32 characters. **service** and **item** each must start with a letter and contain only letters, digits, and underscores (_). Note: This parameter can be empty when **alarm_type** is set to **EVENT.SYS** or **EVENT.CUSTOM**. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. For the namespace of each service, see **Service Namespaces**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_name	String	**Definition**: Metric ID. For example, metric_name of ECS CPU usage is cpu_util. For details about the namespace of each service, see [Service Namespace](ces_03_0059.xml). **Constraints**: None **Range**: The value must start with a letter and can contain only digits, letters (case-insensitive), underscores (_), and hyphens (-). For example, the ECS metric cpu_util indicates the CPU usage of an ECS. The DDS metric mongo001_command_ps indicates the command execution frequency. The length of the character string is [1,96]. **Default Value**: None
dimensions	Array of **MetricsDimension** objects	**Definition**: Dimension of a metric. **Constraints**: A maximum of four dimensions are supported.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-76 MetricsDimension

Parameter	Type	Description
name	String	**Definition**: Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service metric dimension**. **Constraints** N/A **Range**: The value starts with a letter and can contain letters, digits, underscores (_), or hyphens (-). The length is [1,32] characters. **Default Value**: N/A
value	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Table 5-77 Condition

Parameter	Type	Description
comparison_operator	String	**Definition**: Operator of an alarm threshold. **Constraints**: N/A **Range**: **NOTE** , =, <, >=, <=, or != **Default Value**: N/A

Parameter	Type	Description
count	Integer	**Definition**: Number of consecutive times that an alarm is triggered. **Constraints**: N/A **Range**: The value ranges from **1** to **5**. For event alarms, the value ranges from **1** to **100**. **Default Value**: N/A
filter	String	**Definition**: Data aggregation method. **Constraints**: N/A **Range**: The value can be: ● **average** ● **variance** ● **min**: minimum value ● **max**: maximum value ● **sum** **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
period	Integer	**Definition** Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Constraints** N/A **Range** The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A
unit	String	**Definition**: Data unit. **Constraints**: N/A **Range**: [0,32] **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
value	Number	**Definition**: Specifies the alarm threshold. For details about the threshold value, see the value range of each service monitoring metric in the appendix. For example, the value range of cpu_util for ECS in [Services That Can Be Monitored] (ces_03_0059.xml) can be set to 80. **Constraints**: If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range**: The minimum value is -1.7976931348623157e+108, and the maximum value is 1.7976931348623157e+108. **Default Value**: None

Table 5-78 AlarmActions

Parameter	Type	Description
[items]	Array of **Notification** objects	**Definition**: Information about the notification group or topic subscription when an alarm is triggered. **Constraints**: A maximum of 20 actions are supported.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-79 Notification

Parameter	Type	Description
type	String	**Definition**: Alarm notification type. **Constraints**: N/A **Range**: **notification** (SMN notifications) or **autoscaling** (AS notifications) **Default Value**: N/A
notificationList	Array of strings	**Definition**: Recipients to be notified of the alarm status changes. **Constraints**: A maximum of 20 recipients can be configured. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics". If **type** is set to **notification**, the value of **notificationList** cannot be left blank. If **type** is set to **autoscaling**, the value of **notificationList** must be left blank. Note: If **alarm_action_enabled** is set to **true**, you must specify either **alarm_actions** or **ok_actions**. (You do not need to configure the deprecated parameter **insufficientdata_actions**.) If **alarm_actions** and **ok_actions** coexist, their **notificationList** values must be the same. (You do not need to configure the deprecated parameter **insufficientdata_actions**.)

Table 5-80 DataPointForAlarmHistory

Parameter	Type	Description
time	Long	Time when the monitoring data of the alarm history is reported, which is a UNIX timestamp in milliseconds, for example, **1603131028000**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
value	Double	Resource monitoring data of the alarm history at the time point, for example, **7.019**.

Table 5-81 AdditionalInfo

Parameter	Type	Description
resource_id	String	Resource ID corresponding to the alarm history, for example, **22d98f6c-16d2-4c2d-b424-50e79d82838f**.
resource_name	String	Resource name corresponding to the alarm history, for example, **ECS-Test01**.
event_id	String	ID of the event in the alarm record, for example, **ev16031292300990kKN8p17J**.

Table 5-82 MetaDataForAlarmHistory

Parameter	Type	Description
total	Integer	Total number of returned alarm history records.

Status code: 400

Table 5-83 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-84 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 403

Table 5-85 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

Table 5-86 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-87 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

Table 5-88 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-89 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Requests

```
/V1.0/{project_id}/alarm-histories?
limit=10&start=0&from=1602494921346&to=1603099721346&alarm_name=alarm-test01
```

Example Responses

Status code: 200

OK


```
{
  "alarm_histories" : [ {
    "alarm_id" : "al1604473987569z6n6nkpm1",
    "alarm_name" : "TC_CES_FunctionBaseline_Alarm_008",
    "alarm_description" : "",
    "metric" : {
      "namespace" : "SYS.VPC",
      "dimensions" : [ {
        "name" : "bandwidth_id",
        "value" : "79a9cc0c-f626-4f15-bf99-a1f184107f88"
      } ],
      "metric_name" : "downstream_bandwidth"
    },
    "condition" : {
      "period" : 1,
      "filter" : "average",
      "comparison_operator" : ">=",
      "value" : 0,
      "count" : 3
    },
    "alarm_level" : 2,
    "alarm_type" : "",
    "alarm_enabled" : false,
    "alarm_action_enabled" : false,
    "alarm_actions" : [ ],
    "ok_actions" : [ ],
    "insufficientdata_actions" : [ ],
    "update_time" : 1604473988000,
    "enterprise_project_id" : "0",
    "trigger_time" : 1604473987607,
    "alarm_status" : "alarm",
    "datapoints" : [ {
      "time" : 1604473860000,
      "value" : 0
    }, {
      "time" : 1604473800000,
      "value" : 0
    }, {
      "time" : 1604473740000,
      "value" : 0
    } ],
    "additional_info" : {
      "resource_id" : "",
      "resource_name" : "",
      "event_id" : ""
    }
  }, {
    "alarm_id" : "al1604473978613MvlvlbVZD",
    "alarm_name" : "alarm_merge",
    "alarm_description" : "",
    "metric" : {
      "namespace" : "AGT.ECS",
      "dimensions" : [ {
        "name" : "instance_id",
        "value" : "22d98f6c-16d2-4c2d-b424-50e79d82838f"
      } ],
      "metric_name" : "load_average5"
    },
```

```
    "condition" : {
      "period" : 1,
      "filter" : "average",
      "comparison_operator" : ">=",
      "value" : 0,
      "count" : 3
    },
    "alarm_level" : 2,
    "alarm_type" : "RESOURCE_GROUP",
    "alarm_enabled" : false,
    "alarm_action_enabled" : false,
    "alarm_actions" : [ ],
    "ok_actions" : [ ],
    "insufficientdata_actions" : [ ],
    "update_time" : 1604473979000,
    "enterprise_project_id" : "0",
    "trigger_time" : 1604473979070,
    "alarm_status" : "insufficient_data",
    "datapoints" : [ ],
    "additional_info" : {
      "resource_id" : "",
      "resource_name" : "",
      "event_id" : ""
    }
  } ],
  "meta_data" : {
    "total" : 2
  }
}
```


Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

5.3.9 Querying Custom Alarm Templates

Function

This API is used to query the custom alarm templates.

URI

GET /V1.0/{project_id}/alarm-template

- Parameter description

  Table 5-90 Parameter description

Parameter	Type	Mandatory	Description
project_id	String	Yes	Specifies the project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.
alarmTemplateId	String	No	Specifies the ID of the custom alarm template, for example, **at1603330892378wkDm77y6B**.
namespace	String	No	Specifies the resource namespace. For example, the ECS namespace is **SYS.ECS**. To view the namespace of each service, see **Services Interconnected with Cloud Eye**.
dname	String	No	Specifies the resource dimension selected for the custom alarm template. For example, the ECS dimension is **instance_id**. For details about the dimensions of each service, see **Services Interconnected with Cloud Eye**.
start	String	No	Specifies the start value of pagination. The value is an integer. The default value is **0**.
limit	String	No	Specifies the maximum number of the custom alarm template that can be queried at a time. The value range is (0,100] and the default value is **100**.

- Example

```
GET https://{Cloud Eye endpoint}/V1.0/{project_id}/alarm-template
```

Request

None

Response

- Response parameters

Parameter	Type	Mandatory	Description
alarm_templates	Array of objects	No	Provides supplementary information about the custom alarm template. For details, see **Table 5-91**.
meta_data	MetaData object	No	Specifies the metadata of query results, including the pagination information. For details, see **Table 5-94**.

Table 5-91 alarm_templates data structure description

Parameter	Type	Mandatory	Description
template_name	String	No	Specifies the custom alarm template name, for example, **alarmTemplate-Test01**.
template_description	String	No	Provides supplementary information about the custom alarm template.
namespace	String	No	Specifies the resource namespace. For example, the ECS namespace is **SYS.ECS**. To view the namespace of each service, see **Services Interconnected with Cloud Eye**.
dimension_name	String	No	Specifies the resource dimension selected for the custom alarm template. For example, the ECS dimension is **instance_id**. For details about the dimensions of each service, see **Services Interconnected with Cloud Eye**.
template_items	Array of objects	No	Specifies the alarm policy or alarm policies added to the custom alarm template. For details, see **Table 5-92**.
template_id	String	No	Specifies the ID of the custom alarm template, for example, **at1603330892378wkDm77y6B**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-92 template_items data structure description

Parameter	Type	Mandatory	Description
metric_name	String	Yes	Specifies the metric you add to the custom alarm template. For example, you can add ECS **cpu_util**. To view metrics of each resource, see **Services Interconnected with Cloud Eye**.
condition	Condition object	Yes	Specifies the alarm policy you created for the custom alarm template. For details, see **Table 5-93**.
alarm_level	Integer	No	Specifies the alarm severity, which can be **1** (critical), **2** (major), **3** (minor), or **4** (informational).

Table 5-93 condition data structure description

Parameter	Type	Mandatory	Description
period	Integer	Yes	Specifies how often Cloud Eye aggregates data. Possible values: • **1**: Cloud Eye performs no aggregation and displays raw data. • **300**: Cloud Eye aggregates data every 5 minutes. • **1200**: Cloud Eye aggregates data every 20 minutes. • **3600**: Cloud Eye aggregates data every 1 hour. • **14400**: Cloud Eye aggregates data every 4 hours. • **86400**: Cloud Eye aggregates data every 24 hours.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Mandatory	Description
filter	String	Yes	Specifies the data rollup method. The following methods are supported: • **average**: average value of metric data within an aggregation period. • **max**: maximum value of metric data in an aggregation period. • **min**: minimum value of metric data within an aggregation period. • **sum**: sum of metric data within an aggregation period. • **variance**: variance value of metric data within an aggregation period.
comparison_operator	String	Yes	Specifies the alarm threshold operator, which can be >, =, <, ≥, or ≤.
value	Double	Yes	Specifies the alarm threshold. Supported range: **0** to **Number. MAX_VALUE (1.7976931348623157e+108)** For detailed thresholds, see the value range of each metric in the appendix. For example, you can set ECS **cpu_util** to **80**.
unit	String	No	Specifies the data unit, which can contain up to 32 characters.
count	Integer	Yes	Specifies the number of consecutive occurrence times that the alarm policy was met. Supported range: **1** to **5**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Mandatory	Description
suppress_duration	Integer	No	Specifies the interval for triggering an alarm if the alarm persists. Possible intervals are as follows: **0**: Cloud Eye triggers the alarm only once. **300**: Cloud Eye triggers the alarm every 5 minutes. **600**: Cloud Eye triggers the alarm every 10 minutes. **900**: Cloud Eye triggers the alarm every 15 minutes. **1800**: Cloud Eye triggers the alarm every 30 minutes. **3600**: Cloud Eye triggers the alarm every 1 hour. **10800**: Cloud Eye triggers the alarm every 3 hours. **21600**: Cloud Eye triggers the alarm every 6 hours. **43200**: Cloud Eye triggers the alarm every 12 hours. **86400**: Cloud Eye triggers the alarm every day.

Table 5-94 meta_data data structure description

Parameter	Type	Mandatory	Description
total	Integer	Yes	Specifies the total number of query results.
count	Integer	Yes	Specifies the number of returned results.
marker	String	Yes	Specifies the pagination marker.

- Response example

```
{
 "alarm_templates": [
  {
    "template_name": "alarmTemplate-Test01",
    "template_description": "Querying custom templates",
    "namespace": "SYS.ECS",
    "dimension_name": "instance_id",
    "template_items": [
```

```
    {
      "metric_name": "cpu_util",
      "condition": {
        "period": 1,
        "filter": "average",
        "comparison_operator": ">=",
        "value": 90,
        "unit": "%",
        "count": 3,
        "suppress_duration": 300
      },
      "alarm_level": 2
    },
    {
      "metric_name": "mem_util",
      "condition": {
        "period": 1,
        "filter": "average",
        "comparison_operator": ">=",
        "value": 90,
        "unit": "%",
        "count": 3,
        "suppress_duration": 600
      },
      "alarm_level": 2
    }
   ],
   "template_id": "at1604474818207Jo7o7R4Nj"
  }
 ],
 "meta_data": {
  "count": 1,
  "marker": "",
  "total": 1
 }
}
```

Returned Value

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Error Codes

See **Error Codes**.

5.3.10 Updating a Custom Alarm Template

Function

This API is used to update a custom alarm template.

URI

PUT /V1.0/{project_id}/alarm-template/{template_id}

- Parameter description

  Table 5-95 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.
template_id	Yes	Specifies the ID of the custom alarm template you want to update.

- Example
  PUT https://{Cloud Eye endpoint}/V1.0/{project_id}/alarm-template/{template_id}

Request

- Request parameters

  Table 5-96 Request parameters

Parameter	Mandatory	Type	Description
template_name	Yes	String	Specifies the name of the custom alarm template. The name can contain 1 to 128 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
template_description	No	String	Provides supplementary information about the custom alarm template. The description can contain 0 to 256 characters.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
namespace	Yes	String	Specifies the resource type selected for creating the custom alarm template, that is, the service namespace. For example, if you select ECS, **namespace** is **SYS.ECS**.
dimension_name	Yes	String	Specifies the dimension corresponding to the resource type. If ECS is selected, the dimension is ECS and **dimension_name** is **instance_id**.
template_items	Yes	Array of objects	Specifies the alarm rules that you add to the custom alarm template. You can add up to 20 alarm rules. For details, see **Table 5-97**.

Table 5-97 template_items data structure description

Parameter	Mandatory	Type	Description
metric_name	Yes	String	Specifies the metric you add to the custom alarm template. For example, you can add ECS **cpu_util**. To view metrics of each resource, see **Services Interconnected with Cloud Eye**.
condition	Yes	Condition object	Specifies the alarm policy you created for the custom alarm template. For details, see **Table 5-98**.
alarm_level	No	Integer	Specifies the alarm severity. Possible severities are **1** (critical), **2** (major), **3** (minor), and **4** (informational).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-98 condition data structure description

Parameter	Mandatory	Type	Description
comparison_operator	Yes	String	Specifies the alarm threshold operator, which can be >, =, <, >=, or <=.
count	Yes	Integer	Specifies the number of consecutive occurrence times that the alarm policy was met. Supported range: **1** to **5**
filter	Yes	String	Specifies the data rollup method, which can be **max**, **min**, **average**, **sum**, or **variance**.
period	Yes	Integer	Specifies how often Cloud Eye aggregates data. Possible values: • **1**: Cloud Eye performs no aggregation and displays raw data. • **300**: Cloud Eye aggregates data every 5 minutes. • **1200**: Cloud Eye aggregates data every 20 minutes. • **3600**: Cloud Eye aggregates data every hour. • **14400**: Cloud Eye aggregates data every 4 hours. • **86400**: Cloud Eye aggregates data every 24 hours.
unit	No	String	Specifies the data unit. Enter up to 32 characters.
value	Yes	Double	Specifies the alarm threshold. Supported range: **0** to **Number.MAX_VALUE (1.7976931348623157e+108)** For detailed thresholds, see the value range of each metric in **Services Interconnected with Cloud Eye**. For example, you can set ECS **cpu_util** to **80**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
suppress_duration	No	Integer	Specifies the interval for triggering an alarm if the alarm persists. Possible intervals are as follows: **0**: Cloud Eye triggers the alarm only once. **300**: Cloud Eye triggers the alarm every 5 minutes. **600**: Cloud Eye triggers the alarm every 10 minutes. **900**: Cloud Eye triggers the alarm every 15 minutes. **1800**: Cloud Eye triggers the alarm every 30 minutes. **3600**: Cloud Eye triggers the alarm every hour. **10800**: Cloud Eye triggers the alarm every 3 hours. **21600**: Cloud Eye triggers the alarm every 6 hours. **43200**: Cloud Eye triggers the alarm every 12 hours. **86400**: Cloud Eye triggers the alarm every day.

- Example request

```
{
  "template_name": "alarmTemplate-Test01",
  "template_description": "Updating a custom alarm template",
  "namespace": "SYS.ECS",
  "dimension_name": "instance_id",
  "template_items": [
    {
      "metric_name": "cpu_util",
      "condition": {
        "period": 1,
        "filter": "average",
        "comparison_operator": ">=",
        "value": 90,
        "unit": "%",
        "count": 3,
        "suppress_duration": 300
      },
      "alarm_level": 2
    },
    {
      "metric_name": "mem_util",
      "condition": {
        "period": 1,
        "filter": "average",
        "comparison_operator": ">=",
        "value": 90,
        "unit": "%",
```

```
            "count": 3,
            "suppress_duration": 600
        },
        "alarm_level": 2
    }
  ]
}
```

Response

The response has no message body.

Returned Values

- Normal

  204

- Abnormal

Returned Values	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.3.11 Modifying an Alarm Rule

Function

This API is used to modify an alarm rule.

URI

PUT /V1.0/{project_id}/alarms/{alarm_id}

- Parameter description

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-99 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.
alarm_id	Yes	Specifies the alarm rule ID.

- Example
  PUT https://{Cloud Eye endpoint}/V1.0/{project_id}/alarms/{alarm_id}

Request

- Request parameters

Table 5-100 Parameter description

Parameter	Mandatory	Type	Description
alarm_name	No	String	Specifies the alarm rule name. Only letters, digits, underscores (_), and hyphens (-) are allowed.
alarm_description	No	String	Provides supplementary information about the alarm rule. Enter 0 to 256 characters.
condition	No	Condition object	Specifies the alarm policy set in the alarm rule. For details, see **Table 5-101**.
alarm_action_enabled	No	Boolean	Specifies whether to enable the action to be triggered by an alarm. The default value is **true**. **NOTE** If you set **alarm_action_enabled** to **true**, you must specify either **alarm_actions** or **ok_actions**. If **alarm_actions** and **ok_actions** coexist, their **notificationList** must be the same.
alarm_level	No	Integer	Specifies the alarm severity, which can be **1**, **2** (default), **3** or **4**, indicating critical, major, minor, and informational, respectively.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_type	No	String	Specifies the alarm rule type. The following enumeration types are supported: **EVENT.SYS**: The alarm rule is created for system events. **EVENT.CUSTOM**: The alarm rule is created for custom events. **RESOURCE_GROUP**: The alarm rule is created for resource groups.
alarm_actions	No	Array of objects	Specifies the action to be triggered by an alarm. The structure is as follows: { "type": "notification","notificationList": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] } Possible values of **type** are as follows: **notification**: indicates that a notification will be sent. **autoscaling**: indicates that a scaling action will be triggered. For details, see **Table 5-102**.
insufficient data_actions	No	Array of objects	Specifies the action to be triggered by the alarm of insufficient data. (You do not need to configure this deprecated parameter.) For details, see **Table 5-104**.
ok_actions	No	Array of objects	Specifies the action to be triggered after the alarm is cleared. For details, see **Table 5-103**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-101 condition data structure description

Parameter	Mandatory	Type	Description
period	Yes	Integer	Specifies how often Cloud Eye aggregates data, which can be • **1**: Cloud Eye performs no aggregation and displays raw data. • **300**: Cloud Eye aggregates data every 5 minutes. • **1200**: Cloud Eye aggregates data every 20 minutes. • **3600**: Cloud Eye aggregates data every hour. • **14400**: Cloud Eye aggregates data every 4 hours. • **86400**: Cloud Eye aggregates data every 24 hours.
filter	Yes	String	Specifies the data rollup method, which can be • **average**: average value of metric data within an aggregation period. • **max**: maximum value of metric data in an aggregation period. • **min**: minimum value of metric data within an aggregation period. • **sum**: sum of metric data within an aggregation period. • **variance**: variance value of metric data within an aggregation period.
comparison_operator	Yes	String	Specifies the alarm threshold operator, which can be **>**, **=**, **<**, **>=**, or **<=**.
value	Yes	Double	Specifies the alarm threshold. Supported range: **0** to **Number.MAX_VALUE (1.7976931348623157e+108)** For detailed thresholds, see the value range of each metric in the appendix. For example, you can set ECS **cpu_util** to **80**.
unit	No	String	Specifies the data unit. Enter up to 32 characters.
count	Yes	Integer	Specifies the number of consecutive occurrence times that the alarm policy was met. Supported range: **1** to **5**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
suppress_duration	No	Integer	Specifies the interval for triggering an alarm if the alarm persists. Possible intervals are as follows: **0**: Cloud Eye triggers the alarm only once. **300**: Cloud Eye triggers the alarm every 5 minutes. **600**: Cloud Eye triggers the alarm every 10 minutes. **900**: Cloud Eye triggers the alarm every 15 minutes. **1800**: Cloud Eye triggers the alarm every 30 minutes. **3600**: Cloud Eye triggers the alarm every hour. **10800**: Cloud Eye triggers the alarm every 3 hours. **21600**: Cloud Eye triggers the alarm every 6 hours. **43200**: Cloud Eye triggers the alarm every 12 hours. **86400**: Cloud Eye triggers the alarm every day.

Table 5-102 alarm_actions data structure description

Parameter	Mandatory	Type	Description
type	Yes	String	Specifies the alarm notification type. • **notification**: indicates that a notification will be sent. • **autoscaling**: indicates that a scaling action will be triggered.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notificationList	Yes	Array of strings	Specifies the list of objects to be notified if the alarm status changes. You can add up to 5 object IDs. **topicUrn** can be obtained from SMN. For details, see **Querying Topics**. If you set **type** to **notification**, you must specify **notificationList**. If you set **type** to **autoscaling**, you must set **notificationList** to **[]**. **NOTE** • To apply the Auto Scaling (AS) alarm rule, you must bind the scaling policy. For details, see **Creating an AS Policy**. • If you set **alarm_action_enabled** to **true**, you must specify either **alarm_actions** or **ok_actions**. (You do not need to configure the deprecated parameter **insufficientdata_actions**.) • If **alarm_actions** and **ok_actions** coexist, their **notificationList** must be the same. (You do not need to configure the deprecated parameter **insufficientdata_actions**.) • The IDs in the list are strings.

Table 5-103 ok_actions data structure description

Parameter	Mandatory	Type	Description
type	Yes	String	Specifies the notification type when an alarm is triggered. • **notification**: indicates that a notification will be sent. • **autoscaling**: indicates that a scaling action will be triggered.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notificationList	Yes	Array of objects	Specifies the list of objects to be notified if the alarm status changes. The list contains a maximum of 5 object IDs. **topicUrn** can be obtained from SMN. For details, see **Querying Topics**. **NOTE** If you set **alarm_action_enabled** to **true**, you must specify either **alarm_actions** or **ok_actions**. (You do not need to configure the deprecated parameter **insufficientdata_actions**.) If **alarm_actions** and **ok_actions** coexist, their **notificationList** must be the same. (You do not need to configure the deprecated parameter **insufficientdata_actions**.)

Table 5-104 insufficientdata_actions data structure description

Parameter	Mandatory	Type	Description
type	Yes	String	Specifies the notification type when an alarm is triggered. • **notification**: indicates that a notification will be sent. • **autoscaling**: indicates that a scaling action will be triggered.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notificationList	Yes	Array of objects	Specifies the list of objects to be notified if the alarm status changes. You can add up to 5 object IDs. **topicUrn** can be obtained from SMN. For details, see **Querying Topics**. **NOTE** • If you set **alarm_action_enabled** to **true**, you must specify either **alarm_actions** or **ok_actions**. (You do not need to configure the deprecated parameter **insufficientdata_actions**.) • If **alarm_actions** and **ok_actions** coexist, their **notificationList** must be the same. (You do not need to configure the deprecated parameter **insufficientdata_actions**.) • The IDs in the list are strings.

- Example request

```
{
  "alarm_name": "alarm-update-test01",
  "alarm_description": "alarm-update-test01",
  "condition": {
      "comparison_operator": ">=",
      "count": 3,
      "filter": "average",
      "period": 1,
      "value": 95
  },
  "alarm_action_enabled": false,
  "alarm_level": 2
}
```

Returned Values

- Normal

  204

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Returned Value	Description
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.4 Monitoring Data

5.4.1 Querying Monitoring Data of a Metric

Function

This API is used to query the monitoring data of a specified metric at a specified granularity in a specified time range. You can specify the dimension of data to be queried.

URI

GET /V1.0/{project_id}/metric-data

Example:

```
GET /V1.0/{project_id}/metric-data?namespace={namespace}&metric_name={metric_name}&dim.{i}=key,value&from={from}&to={to}&period={period}&filter={filter}
```

- Parameter description

Table 5-105 Parameter description

Parameter	Mandatory	Description
project_id	Yes	**Definition** Project ID, which is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Table 5-106 Query parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details, see **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** The namespace must be in the service.item format. **service** and **item** must be strings, and each must start with a letter and contain only letters (case-insensitive), digits, and underscores (_). In addition, **service** cannot start with **SYS**, **AGT**, or **SRE**. **namespace** cannot be **SERVICE.BMS** because this namespace has been used by the system. The value can contain 3 to 32 characters. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition** Metric ID. For example, **metric_name** of ECS CPU usage is **cpu_util**. For details about the metrics of each service, see **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** The value must start with a letter and can contain only digits, letters, underscores (_), and hyphens (-). For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. The value can contain 1 to 96 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
from	Yes	String	**Definition** Start time for the query. The value is a UNIX timestamp, in milliseconds (ms). **Constraints** Cloud Eye aggregates raw data generated within an aggregation period to the start time of the period. If the time range specified by **from** and **to** falls within an ongoing aggregation period, the query result will be empty because the aggregation has not finished yet. Set **from** to at least one period earlier than the current time. Take the 5-minute period as an example. If it is 10:35 now, the raw data generated between 10:30 and 10:35 will be aggregated to 10:30. In this example, if **period** is 5 minutes, **from** should be 10:30. **Range** N/A **Default Value** N/A **NOTE** Cloud Eye rounds up **from** based on the level of granularity required to perform the rollup.
to	Yes	String	**Definition** End time of the query. The value is a UNIX timestamp, in milliseconds (ms). **Constraints** **from** must be earlier than **to**. **Range** N/A **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
period	Yes	Integer	**Definition** Aggregation granularity of metric monitoring data. **Constraints** N/A **Range** The value can be: • **1**: real-time data of monitored resources. • **60**: Data is aggregated every one minute (one data point per minute). • **300**: Data is aggregated every 5 minutes (one data point every 5 minutes). • **1200**: Data is aggregated every 20 minutes (one data point every 20 minutes). • **3600**: Data is aggregated every one hour (one data point per hour). • **14400**: Data is aggregated every 4 hours (one data point every four hours). • **86400**: Data is aggregated every one day (one data point per day). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
filter	Yes	String	**Definition** Data aggregation method. **Constraints** N/A **Range** The value can be: • **average**: average value of metric data within an aggregation period. • **max**: maximum value of metric data in an aggregation period. • **min**: minimum value of metric data within an aggregation period. • **sum**: sum of metric data within an aggregation period. • **variance**: variance value of metric data within an aggregation period. **Default Value** N/A **NOTE** During an aggregation process, data generated within a specified time range is consolidated to the start point of the aggregation period using the relevant aggregation algorithm. Take the 5-minute period as an example. If the current time is 10:35, the raw data generated between 10:30 and 10:35 will be aggregated to 10:30.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dim	Yes	String	**Definition** Dimension of a metric. **Constraints** A maximum of 4 hierarchical dimensions are supported. The dimensions are numbered from 0. **Range** The dimension format is **dim.{i}=key,value**. **key** cannot exceed 32 characters and **value** cannot exceed 256 characters. The following dimensions are only examples. For details about whether multiple dimensions are supported, see the **metric description of each service**. Single-level dimension: **dim.0=instance_id,i-12345** Multi-level dimension: **dim.0=instance_id,i-12345&dim.1=instance_name,i-1234** **NOTE** If the dimensions of a metric have a hierarchical relationship, you need to use multi-level dimension queries. **Default Value** N/A

NOTE

- **dimensions** can be obtained from the response body by calling the API for **Querying Metrics**.
- OBS metric data can be queried only when the related OBS APIs are called.

- Example:

  Request example 1: View the CPU usage of ECS whose ID is **6f3c6f91-4b24-4e1b-b7d1-a94ac1cb011d** from 2019-04-30 20:00:00 to 2019-04-30 22:00:00. The monitoring interval is 20 minutes.

  ```
  GET https://{Cloud Eye endpoint}/V1.0/{project_id}/metric-data?namespace=SYS.ECS&metric_name=cpu_util&dim.0=instance_id,6f3c6f91-4b24-4e1b-b7d1-a94ac1cb011d&from=1556625600000&to=1556632800000&period=1200&filter=min
  ```

Request

None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response

- Response parameters

Table 5-107 Parameter description

Parameter	Type	Description
datapoints	Array of objects	**Definition** Metric data list. For details, see **Table 5-108**. Since Cloud Eye rounds up **from** based on the level of granularity for data query, **datapoints** may contain more data points than expected.
metric_name	String	**Definition** Metric ID. For example, **metric_name** of ECS CPU usage is **cpu_util**. For details about the metrics of each service, see **Services Interconnected with Cloud Eye**. **Range** N/A

Table 5-108 datapoints data structure description

Parameter	Type	Description
average	Double	**Definition** Average value of metric data within an aggregation period. **Range** N/A
max	Double	**Definition** Maximum value of metric data within an aggregation period. **Range** N/A
min	Double	**Definition** Minimum value of metric data within an aggregation period. **Range** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
sum	Double	**Definition** Sum of metric data within an aggregation period. **Range** N/A
variance	Double	**Definition** Variance value of metric data within an aggregation period. **Range** N/A
timestamp	Long	**Definition** Time when a metric was collected. It is a UNIX timestamp, in milliseconds. **Range** N/A
unit	String	**Definition** Metric unit. **Range** N/A

- Example response

  Example response 1: The dimension is SYS.ECS, and the average CPU usage of ECSs is displayed.

```
{
   "datapoints": [
      {
         "average": 0.23,
         "timestamp": 1442341200000,
         "unit": "%"
      }
   ],
   "metric_name": "cpu_util"
}
```

  Example response 2: The dimension is SYS.ECS, and the sum CPU usage of ECSs is displayed.

```
{
   "datapoints": [
      {
         "sum": 0.53,
         "timestamp": 1442341200000,
         "unit": "%"
      }
   ],
   "metric_name": "cpu_util"
}
```

  Example response 3: The dimension is SYS.ECS, and the maximum CPU usage of ECSs is displayed.

```
{
   "datapoints": [
```

```
        {
            "max": 0.13,
            "timestamp": 1442341200000,
            "unit": "%"
        }
    ],
    "metric_name": "cpu_util"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.4.2 Adding Monitoring Data

Function

This API is used to add one or more pieces of metric monitoring data.

URI

POST /V1.0/{project_id}/metric-data

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-109 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 5-110 Request body parameters

Parameter	Mandatory	Type	Description
[items]	Yes	Array of **CreateMetricDataRequestBody** objects	Request parameter for adding one or more pieces of custom metric data.

Table 5-111 CreateMetricDataRequestBody

Parameter	Mandatory	Type	Description
metric	Yes	**MetricInfo** object	**Definition**: Metric data. **Constraints**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
ttl	Yes	Integer	**Definition**: Data validity period, in seconds. If the validity period expires, data will be automatically deleted. **Constraints**: N/A **Range**: The value is an integer ranging from **1** to **604800**. **Default Value**: N/A
collect_time	Yes	Long	**Definition**: Time when the data was collected. The value is a UNIX timestamp in milliseconds. **Constraints**: N/A **Range**: Since there is a latency between the client and the server, the timestamp when data was inserted must be within the time range [Current time – 3d + 10s, Current time + 10 mins – 10s]. In this way, the data will be inserted to the database without being affected by the latency. **Default Value**: N/A
value	Yes	Double	**Definition**: Value of the monitored metric data to be added. **Constraints**: N/A **Range**: The value can be an integer or a floating point number. **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
unit	No	String	**Definition**: Data unit. **Constraints**: N/A **Range**: [0,32] **Default Value**: N/A
type	No	String	**Definition**: Data type. **Constraints**: N/A **Range**: The value can be: • **int**: integer • **float**: floating point number **Default Value**: N/A

Table 5-112 MetricInfo

Parameter	Mandatory	Type	Description
namespace	Yes	String	Metric namespace, which must be in the service.item format and contain 3 to 32 characters. **service** and **item** each must start with a letter and contain only letters, digits, and underscores (_). Note: This parameter can be empty when **alarm_type** is set to **EVENT.SYS** or **EVENT.CUSTOM**. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. For the namespace of each service, see **Service Namespaces**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition**: Metric ID. For example, metric_name of ECS CPU usage is cpu_util. For details about the namespace of each service, see [Service Namespace](ces_03_0059.xml). **Constraints**: None **Range**: The value must start with a letter and can contain only digits, letters (case-insensitive), underscores (_), and hyphens (-). For example, the ECS metric cpu_util indicates the CPU usage of an ECS. The DDS metric mongo001_command_ps indicates the command execution frequency. The length of the character string is [1,96]. **Default Value**: None
dimensions	Yes	Array of **MetricsDimension** objects	**Definition**: Dimension of a metric. **Constraints**: A maximum of four dimensions are supported.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-113 MetricsDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service metric dimension**. **Constraints** N/A **Range**: The value starts with a letter and can contain letters, digits, underscores (_), or hyphens (-). The length is [1,32] characters. **Default Value**: N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Response Parameters

Status code: 201

Created

Status code: 400

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-114 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-115 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-116 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

Table 5-117 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-118 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-119 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-120 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
[ {
  "metric" : {
    "namespace" : "MINE.APP",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "33328f02-3814-422e-b688-bfdba93d4050"
    } ],
    "metric_name" : "cpu_util"
  },
  "ttl" : 172800,
  "collect_time" : 1463598260000,
  "value" : 60,
  "unit" : "%"
}, {
  "metric" : {
    "namespace" : "MINE.APP",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "33328f02-3814-422e-b688-bfdba93d4050"
    } ],
    "metric_name" : "cpu_util"
  },
  "ttl" : 172800,
  "collect_time" : 1463598270000,
  "value" : 70,
  "unit" : "%"
} ]
```

Example Responses

None

Status Codes

Status Code	Description
201	Created

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

5.4.3 Querying Monitoring Data of Multiple Metrics

Function

You can query the data of specified metrics within a specified time range and at a specified granularity. You can query the monitoring data of up to 500 metrics in one batch.

URI

POST /V1.0/{project_id}/batch-query-metric-data

- Parameter description

Table 5-121 Parameter description

Parameter	Mandatory	Description
project_id	Yes	**Definition** Project ID, which is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request

NOTICE

1. The size of a POST request cannot exceed 512 KB. Otherwise, the request will be denied.
2. The default maximum query interval (**to**–**from**) varies depending on **period** and the number of metrics to be queried. The rule is as follows: Number of metrics x (**to** - **from**)/Monitoring interval ≤ 3000.
   - If **period** is **1**, the monitoring interval is 60,000 ms (60 x 1000).
   - If **period** is **300**, the monitoring interval is 300,000 ms (300 x 1000).
   - If **period** is **1200**, the monitoring interval is 1,200,000 ms (1200 x 1000).
   - If **period** is **3600**, the monitoring interval is 3,600,000 ms (3600 x 1000).
   - If **period** is **14400**, the monitoring interval is 14,400,000 ms (14400 x 1000).
   - If **period** is **86400**, the monitoring interval is 86,400,000 ms (86400 x 1000).

   For example, if 300 metrics are queried in batches and the monitoring interval is 60,000 ms, the maximum value of (**to**-**from**) is **600000**. If (**to**-**from**) exceeds 600,000, **from** is automatically changed to **to**-**600000**.

- Request parameters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-122 Request parameters

Parameter	Mandatory	Type	Description
metrics	Yes	Array of objects	**Definition** Metric data. For details, see **Table 5-123**. **Constraints** The array can contain a maximum of 500 items.
from	Yes	Long	**Definition** Start time of the query. The value is a UNIX timestamp, in milliseconds. **Constraints** Set **from** to at least one period earlier than the current time. Cloud Eye aggregates raw data generated within an aggregation period to the start time of the period. If the time range specified by **from** and **to** falls within an ongoing aggregation period, the query result will be empty because the aggregation has not finished yet. Set **from** to at least one period earlier than the current time. Take the 5-minute period as an example. If it is 10:35 now, the raw data generated between 10:30 and 10:35 will be aggregated to 10:30. In this example, if **period** is 5 minutes, **from** should be 10:30. **Range** N/A **Default Value** N/A **NOTE** Cloud Eye rounds up **from** based on the level of granularity required to perform the rollup.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
to	Yes	Long	**Definition** End time of the query. The value is a UNIX timestamp, in milliseconds (ms). **Constraints** **from** must be earlier than **to**. **Range** N/A **Default Value** N/A
period	Yes	String	**Definition** Aggregation granularity of metric monitoring data. **Constraints** N/A **Range** The value can be: • **1**: real-time data of monitored resources. • **60**: Data is aggregated every one minute (one data point per minute). • **300**: Data is aggregated every 5 minutes (one data point every 5 minutes). • **1200**: Data is aggregated every 20 minutes (one data point every 20 minutes). • **3600**: Data is aggregated every one hour (one data point per hour). • **14400**: Data is aggregated every 4 hours (one data point every four hours). • **86400**: Data is aggregated every one day (one data point per day). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
filter	Yes	String	**Definition** Data aggregation method. **Constraints** **filter** does not affect the query result of raw data. (The period is **1**.) **Range** The value can be: • **average**: average value of metric data within an aggregation period. • **max**: maximum value of metric data in an aggregation period. • **min**: minimum value of metric data within an aggregation period. • **sum**: sum of metric data within an aggregation period. • **variance**: variance value of metric data within an aggregation period. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-123 metrics data structure description

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of the queried service. For details, see **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** The namespace must be in the service.item format. **service** and **item** must be strings, and each must start with a letter and contain only letters (case-insensitive), digits, and underscores (_). In addition, **service** cannot start with **SYS**, **AGT**, or **SRE**. **namespace** cannot be **SERVICE.BMS** because this namespace has been used by the system. The value can contain 3 to 32 characters. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition** Metric ID. For example, **metric_name** of ECS CPU usage is **cpu_util**. For details about the metrics of each service, see **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** The value must start with a letter and can contain only digits, letters (case-insensitive), underscores (_), and hyphens (-). For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. The value can contain 1 to 96 characters. **Default Value** N/A

dimensions	Yes	Array of objects	**Definition**
			Dimension of a metric.
			Each dimension is a JSON object, and its structure is as follows:
			{
			"name": "instance_id",
			"value": "33328f02-3814-422e-b688-bfdba93d4050"
			}
			For details, see **Table 5-124**.
			Constraints
			A maximum of four dimensions are supported.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-124 dimensions data structure description

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Monitoring dimension name. For example, the dimension of an ECS is **instance_id**. For details about the dimension of each service, see the **key** field in **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** The value must start with a letter and can contain 1 to 32 characters. It can contain only digits, letters, underscores (_), and hyphens (-). **Default Value** N/A
value	Yes	String	**Definition** Dimension value, for example, an ECS ID. **dimensions** can be obtained from the response body by calling the API for **querying metrics**. **Constraints** N/A **Range** The value must start with a letter or digit and can contain 1 to 256 characters. It can contain only digits, letters, underscores (_), and hyphens (-). **Default Value** N/A

NOTE

- **dimensions** can be obtained from the response body by calling the API for **querying metrics**.
- OBS metric data can be queried only when the related OBS APIs are called.

- Example requests

Example 1: Query the average disk usage of the disk whose **mount_point** is **012bec14bc176310c19f40e384fd629b** on the ECS whose **instance_id** is **07d878a9-2243-4e84-aeef-c47747d18024** from 20:00:00 to 22:00:00 on April 30, 2019.

```
{
   "from": 1556625600000,
   "to": 1556632800000,
   "period": "1",
   "filter": "average",
   "metrics": [{
      "dimensions": [{
         "name": "instance_id",
         "value": "07d878a9-2243-4e84-aeef-c47747d18024"
      }, {
         "name": "mount_point",
         "value": "012bec14bc176310c19f40e384fd629b"
      }],
      "metric_name": "disk_usedPercent",
      "namespace": "AGT.ECS"
   }]
}
```

Example 2: Query the average memory usage of the ECS whose **instance_id** is **238764d4-c4e1-4274-88a1-5956b057766b** from 20:00:00 to 22:00:00 on April 30, 2019.

```
{
   "from": 1556625600000,
   "to": 1556632800000,
   "period": "1",
   "filter": "average",
   "metrics": [{
      "dimensions": [{
         "name": "instance_id",
         "value": "238764d4-c4e1-4274-88a1-5956b057766b"
      }],
      "metric_name": "mem_usedPercent",
      "namespace": "AGT.ECS"
   }]
}
```

Example 3: Query the average **cpu_util** of the five ECSs whose values of **instance_id** are **faea5b75-e390-4e2b-8733-9226a9026070**, **faea5b75-e390-4e2b-8733-9226a9026071**, **faea5b75-e390-4e2b-8733-9226a9026072**, **faea5b75-e390-4e2b-8733-9226a9026073**, and **faea5b75-e390-4e2b-8733-9226a9026074** from 00:00:00 to 23:59:59 on August 21, 2024. Query five metrics. The monitoring period is 60,000 ms. The maximum value of (**to** – **from**) is **36000000**. The value of the request parameter (**to** – **from**) is **86399000**, which exceeds the maximum value **36000000**. The formula is as follows: Number of metrics × Value of (**to** – **from**)/Monitoring period ≤ 3000. The system automatically sets the value of **from** to **to** – **36000000**, that is, **1724219999000**.

```
{
   "metrics": [
     {
         "namespace": "SYS.ECS",
         "dimensions": [
            {
               "name": "instance_id",
               "value": "faea5b75-e390-4e2b-8733-9226a9026070"
            }
         ],
         "metric_name": "cpu_util"
      },
     {
```

```
        "namespace": "SYS.ECS",
        "dimensions": [
          {
            "name": "instance_id",
            "value": "faea5b75-e390-4e2b-8733-9226a9026071"
          }
        ],
        "metric_name": "cpu_util"
      },
        {
        "namespace": "SYS.ECS",
        "dimensions": [
          {
            "name": "instance_id",
            "value": "faea5b75-e390-4e2b-8733-9226a9026072"
          }
        ],
        "metric_name": "cpu_util"
      },
        {
        "namespace": "SYS.ECS",
        "dimensions": [
          {
            "name": "instance_id",
            "value": "faea5b75-e390-4e2b-8733-9226a9026073"
          }
        ],
        "metric_name": "cpu_util"
      },
        {
        "namespace": "SYS.ECS",
        "dimensions": [
          {
            "name": "instance_id",
            "value": "faea5b75-e390-4e2b-8733-9226a9026074"
          }
        ],
        "metric_name": "cpu_util"
      }
    ],
    "from": 1724169600000,
    "to": 1724255999000,
    "period": "1",
    "filter": "average"
}
```


Example 4: View the average **cpu_util** of the ECS whose **instance_id** is **faea5b75-e390-4e2b-8733-9226a9026070** and the average **network_vm_connections** of the ECS whose **instance_id** is **06b4020f-461a-4a52-84da-53fa71c2f42b** from 20:00:00 to 22:00:00 on April 30, 2019.


```
{
    "metrics": [
      {
        "namespace": "SYS.ECS",
        "dimensions": [
          {
            "name": "instance_id",
            "value": "faea5b75-e390-4e2b-8733-9226a9026070"
          }
        ],
        "metric_name": "cpu_util"
      },
      {
        "namespace": "SYS.ECS",
        "dimensions": [
          {
            "name": "instance_id",
            "value": "06b4020f-461a-4a52-84da-53fa71c2f42b"
```

```
            }
         ],
         "metric_name": "network_vm_connections"
      }
   ],
   "from": 1556625600000,
   "to": 1556632800000,
   "period": "1",
   "filter": "average"
}
```

Example 5: View the individual sums of **rds021_myisam_buf_usage** of the RDS instance whose **rds_cluster_id** is **3c8cc15614ab46f5b8743317555e0de2in01** and the RDS instance whose **rds_cluster_id** is **3b2fa8b55a9b4adca3713962a9d31884in01** from 20:00:00 to 22:00:00 on April 30, 2019.

```
{
   "metrics": [
      {
         "namespace": "SYS.RDS",
         "dimensions": [
            {
               "name": "rds_cluster_id",
               "value": "3c8cc15614ab46f5b8743317555e0de2in01"
            }
         ],
         "metric_name": "rds021_myisam_buf_usage"
      },
      {
         "namespace": "SYS.RDS",
         "dimensions": [
            {
               "name": "rds_cluster_id",
               "value": "3b2fa8b55a9b4adca3713962a9d31884in01"
            }
         ],
         "metric_name": "rds021_myisam_buf_usage"
      }
   ],
   "from": 1556625600000,
   "to": 1556632800000,
   "period": "1",
   "filter": "sum"
}
```

Example 6: View the minimum **proc_specified_count** of the server whose **instance_id** is **cd841102-f6b1-407d-a31f-235db796dcbb** and **proc** is **b28354b543375bfa94dabaeda722927f**. The monitoring data is collected from 20:00:00 to 22:00:00 on April 30, 2019 and the aggregation period is 20 minutes.

```
{
   "metrics": [
      {
         "namespace": "AGT.ECS",
         "dimensions": [
            {
               "name": "instance_id",
               "value": "cd841102-f6b1-407d-a31f-235db796dcbb"
            },
            {
               "name": "proc",
               "value": "b28354b543375bfa94dabaeda722927"
            }
         ],
         "metric_name": "proc_specified_count"
      }
   ],
   "from": 1556625600000,
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
    "to": 1556632800000,
    "period": "1200",
    "filter": "min"
}
```

Response

- Response parameters

Table 5-125 Parameter description

Parameter	Type	Description
metrics	Array of objects	**Definition** Metric data list. For details, see **Table 5-126**.

Table 5-126 metrics data structure description

Parameter	Type	Description
unit	String	**Definition** Metric unit. **Range** N/A
datapoints	Array of objects	**Definition** Metric data list. During data query, Cloud Eye rounds up the value of **from** based on the aggregation granularity selected, so there may be more data points in **datapoints** than expected. A maximum of 3,000 data points can be returned. For details, see **Table 5-128**.
namespace	String	**Definition** Metric namespace. **Range** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description

dimensions	Array of objects	**Definition**
		List of metric dimensions.
		Each dimension is a JSON object, and its structure is as follows:
		{
		"name": "instance_id",
		"value": "33328f02-3814-422e-b688-bfdba93d4050"
		}
		For details, see **Table 5-127**.

metric_name	String	**Definition** Metric name. **Range** N/A

Table 5-127 dimensions data structure description

Parameter	Type	Description
name	String	**Definition** Monitoring dimension name. For example, the dimension of an ECS is **instance_id**. For details about the dimension of each service, see the **key** field in **Services Interconnected with Cloud Eye**. **Range** N/A
value	String	**Definition** Dimension value, for example, an ECS ID. **Range** N/A

Table 5-128 datapoints data structure description

Parameter	Type	Description
average	Double	**Definition** Average value of metric data within an aggregation period. **Range** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
max	Double	**Definition** Maximum value of metric data within an aggregation period. **Range** N/A
min	Double	**Definition** Minimum value of metric data within an aggregation period. **Range** N/A
sum	Double	**Definition** Sum of metric data within an aggregation period. **Range** N/A
variance	Double	**Definition** Variance value of metric data within an aggregation period. **Range** N/A
timestamp	Long	**Definition** Time when a metric was collected. It is a UNIX timestamp, in milliseconds. **Range** N/A

- Example response

  Example response 1: The average **cpu_util** of the ECS whose **instance_id** is **faea5b75-e390-4e2b-8733-9226a9026070** and the average **network_vm_connections** of the ECS whose **instance_id** is **06b4020f-461a-4a52-84da-53fa71c2f42b** are displayed.

```
{
   "metrics": [
      {
         "namespace": "SYS.ECS",
         "metric_name": "cpu_util",
         "dimensions": [
            {
               "name": "instance_id",
               "value": "faea5b75-e390-4e2b-8733-9226a9026070"
            }
         ],
         "datapoints": [
            {
               "average": 0.69,
               "timestamp": 1556625610000
            },
```

```
            {
                "average": 0.7,
                "timestamp": 1556625715000
            }
        ],
        "unit": "%"
    },
    {
        "namespace": "SYS.ECS",
        "metric_name": "network_vm_connections",
        "dimensions": [
            {
                "name": "instance_id",
                "value": "06b4020f-461a-4a52-84da-53fa71c2f42b"
            }
        ],
        "datapoints": [
            {
                "average": 1,
                "timestamp": 1556625612000
            },
            {
                "average": 3,
                "timestamp": 1556625717000
            }
        ],
        "unit": "count"
    }
  ]
}
```

Response example 2: The **rds021_myisam_buf_usage** sums of the RDS instance whose **rds_cluster_id** are **3c8cc15614ab46f5b8743317555e0de2in01** is displayed, and those of the RDS instance whose **rds_cluster_id** is **3b2fa8b55a9b4adca3713962a9d31884in01** are displayed.

```
{
  "metrics": [
    {
        "unit": "Ratio",
        "datapoints": [
            {
                "sum": 0.07,
                "timestamp": 1556625628000
            },
            {
                "sum": 0.07,
                "timestamp": 1556625688000
            }
        ],
        "namespace": "SYS.RDS",
        "dimensions": [
            {
                "name": "rds_cluster_id",
                "value": "3c8cc15614ab46f5b8743317555e0de2in01"
            }
        ],
        "metric_name": "rds021_myisam_buf_usage"
    },
    {
        "unit": "Ratio",
        "datapoints": [
            {
                "sum": 0.06,
                "timestamp": 1556625614000
            },
            {
                "sum": 0.07,
                "timestamp": 1556625674000
```

```
            }
         ],
         "namespace": "SYS.RDS",
         "dimensions": [
            {
               "name": "rds_cluster_id",
               "value": "3b2fa8b55a9b4adca3713962a9d31884in01"
            }
         ],
         "metric_name": "rds021_myisam_buf_usage"
      }
   ]
}
```


Response example 3: The minimum **rds021_myisam_buf_usage** of the server whose **instance_id** is **cd841102-f6b1-407d-a31f-235db796dcbb** and **proc** is **b28354b543375bfa94dabaeda722927f** is displayed.


```
{
   "metrics": [
      {
         "unit": "Ratio",
         "datapoints": [
            {
               "min": 0,
               "timestamp": 1556625612000
            },
            {
               "min": 0,
               "timestamp": 1556625672000
            }
         ],
         "namespace": "AGT.ECS",
         "dimensions": [
            {
               "name": "instance_id",
               "value": "cd841102-f6b1-407d-a31f-235db796dcbb"
            },
            {
               "name": "proc",
               "value": "b28354b543375bfa94dabaeda722927f"
            }
         ],
         "metric_name": "rds021_myisam_buf_usage"
      }
   ]
}
```


Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.

Returned Value	Description
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.4.4 Querying the Host Configuration

Function

This API is used to query the host configuration for a specified event type in a specified time range. You can specify the dimension of data to be queried.

NOTICE

This API is provided for SAP Monitor in the HANA scenario to query the host configuration. In other scenarios, the host configuration cannot be queried with this API.

URI

GET /V1.0/{project_id}/event-data

- Parameter description

  Table 5-129 Parameter description

Parameter	Mandatory	Description
project_id	Yes	**Definition** Project ID, which is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details about how to obtain the project ID, see **Obtaining a Project ID**.

- Parameters that are used to query the host configuration

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of the queried service. For details, see **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** The namespace must be in the service.item format. **service** and **item** must be strings, and each must start with a letter and contain only letters (case-insensitive), digits, and underscores (_). In addition, **service** cannot start with **SYS**, **AGT**, or **SRE**. **namespace** cannot be **SERVICE.BMS** because this namespace has been used by the system. The value can contain 3 to 32 characters. For example, the ECS namespace is **SYS.ECS**, and the DDS namespace is **SYS.DDS**. **Default Value** N/A
type	Yes	String	**Definition** Event type. It can contain only letters, underscores (_), and hyphens (-). It must start with a letter and cannot exceed 64 characters, for example, **instance_host_info**. **Constraints** N/A **Range** The value cannot exceed 64 characters. Regular matching: ^([a-z]|[A-Z]){1}([a-z]|[A-Z]|[0-9]|_|-)*$ **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
from	Yes	String	**Definition** Start time of the query. The value is a UNIX timestamp, in milliseconds. **Constraints** N/A **Range** N/A **Default Value** N/A
to	Yes	String	**Definition** End time of the query. The value is a UNIX timestamp, in milliseconds. **Constraints** **from** must be earlier than **to**. **Range** N/A **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dim	Yes	String	**Definition** Monitoring dimension, for example, **instance_id** for ECSs. For details about the dimensions corresponding to the monitoring metrics of each service, see the monitoring metrics description of the corresponding service in **Services Interconnected with Cloud Eye**. **Constraints** N/A **Range** Metric dimension. A maximum of 3 dimensions are supported, numbered from 0 and in the dim.{i}=key,value format. **key** cannot exceed 32 characters and **value** cannot exceed 256 characters. Example: **dim.0=instance_id,i-12345** **Default Value** N/A

- Example: Query the configuration information about the ECS whose **ID** is **33328f02-3814-422e-b688-bfdba93d4051** and **type** is **instance_host_info**.

```
GET https://{Cloud Eye endpoint}/V1.0/{project_id}/event-data?
namespace=SYS.ECS&dim.0=instance_id,33328f02-3814-422e-b688-
bfdba93d4051&type=instance_host_info&from=1450234543422&to=1450320943422
```

Request

None

Response

- Response parameters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-130 Parameter description

Parameter	Type	Description
datapoints	Array of objects	**Definition** Configuration list. If the corresponding configuration information does not exist, **datapoints** is an empty array and is **[]**. For details, see **Table 5-131**.

Table 5-131 datapoints data structure description

Parameter	Type	Description
type	String	**Definition** Event type, for example, **instance_host_info**. **Range** N/A
timestamp	Long	**Definition** Time when the event was reported. The value is a UNIX timestamp, in milliseconds. **Range** N/A
value	String	**Definition** Host configuration information. **Range** N/A

- Example response

```
{
  "datapoints": [
    {
      "type": "instance_host_info",
      "timestamp": 1450231200000,
      "value": "xxx"
    },
    {
      "type": "instance_host_info",
      "timestamp": 1450231800000,
      "value": "xxx"
    }
  ]
}
```

Returned Values

- Normal

  200

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.5 Quotas

5.5.1 Querying Quotas

Function

This API is used to query a resource quota and the used amount. The current resource refers to alarm rules only.

URI

GET /V1.0/{project_id}/quotas

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-132 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 5-133 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

Response Parameters

Status code: 200

Table 5-134 Response body parameters

Parameter	Type	Description
quotas	**QuotasResp** object	**Definition**: Quota list.

Table 5-135 QuotasResp

Parameter	Type	Description
resources	Array of **ResourceQuotasResp** objects	**Definition**: Resource quota list.

Table 5-136 ResourceQuotasResp

Parameter	Type	Description
type	String	**Definition**: Quota type. **Range**: The value can be: • **alarm**: alarm rule

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
used	Long	**Definition**: Used amount of the quota. **Range**: N/A
unit	String	**Definition**: Unit. **Range**: 0 to 32 characters
quota	Long	**Definition**: Total quotas. **Range**: N/A
min	Long	**Definition**: Minimum value. **Range**: N/A
max	Long	**Definition**: Maximum value. **Range**: N/A

Status code: 400

Table 5-137 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-138 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 403

Table 5-139 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

Table 5-140 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-141 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

Table 5-142 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-143 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
/V1.0/{project_id}/quotas
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Responses

Status code: 200

OK

```
{
  "quotas" : {
    "resources" : [ {
      "unit" : "",
      "type" : "alarm",
      "quota" : 1000,
      "used" : 10
    } ]
  }
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

5.6 Resource Groups

5.6.1 Querying Resources in a Resource Group

Function

This API is used to query resources in a resource group by resource group ID. This API has been deprecated. You are advised to use the V2 APIs. For details, see **Querying Resources of a Specified Dimension for a Specified Service Type in a Resource Group**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

URI

GET /V1.0/{project_id}/resource-groups/{group_id}

Table 5-144 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
group_id	Yes	String	**Definition** Resource group ID. **Constraints** N/A **Range** The value starts with **rg** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-145 Query Parameters

Parameter	Mandatory	Type	Description
status	No	String	**Definition** Health status of a resource group. **Constraints** N/A **Range** • **health**: No alarms have been generated for the resource group. • **unhealth**: An alarm or alarms have been generated for a resource or resources in the resource group. • **no_alarm_rule**: No alarm rules have been set for the resource group. **Default Value** N/A
namespace	No	String	**Definition** Resource type, that is, namespace. For example, the namespace of an ECS is **SYS.ECS**. For the namespace of each service, see the **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value can include 3 to 32 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dname	No	String	**Definition** Resource dimension. For example, the dimension of an ECS is **instance_id**. For the dimension of each service, see the **Service Metric Dimensions**. **Constraints** N/A **Range** The value allows 1 to 131 characters. It can include letters, digits, underscores (_), hyphens (-), slashes (/), number signs (#), backslashes (), and parentheses. **Default Value** N/A
start	No	Integer	**Definition** Pagination start value. **Constraints** N/A **Range** [0,9999999] **Default Value** 0
limit	No	Integer	**Definition** Maximum number of records that can be queried at a time. **Constraints** N/A **Range** [1,100] **Default Value** 100

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 5-146 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

Response Parameters

Status code: 200

Table 5-147 Response body parameters

Parameter	Type	Description
group_name	String	**Definition** Resource group name. **Range** The value allows 1 to 128 characters. It can only contain letters, digits, hyphens (-), and underscores (_).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
group_id	String	**Definition**: Resource group ID. **Range**: The value starts with **rg** and is followed by 22 characters that may include letters, digits, or a combination of both. It can contain 2 to 24 characters.
type	String	**Definition** Method for adding resources to a resource group. **Range** • **EPS**: by enterprise project • **TAG**: by tag • **NAME**: by instance name • **COMB**: by multiple criteria • **Manual**: manually
resources	Array of **ResourceGroup** objects	**Definition** One or more resources selected for the resource group to be created.
status	String	**Definition** Health status of a resource group. **Constraints** N/A **Range** • **health**: No alarms have been generated for the resource group. • **unhealth**: An alarm or alarms have been generated for a resource or resources in the resource group. • **no_alarm_rule**: No alarm rules have been set for the resource group. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
create_time	Long	**Definition**: Time when the resource group was created. The value is a UNIX timestamp in milliseconds. Example: **1603819753000**. **Range**: [1,9223372036854775807]
meta_data	**MetaData** object	Metadata of query results, including the pagination information.
enterprise_project_id	String	**Definition**: Enterprise project associated with the resource group upon its creation. The default value **0** indicates that the enterprise project **default** is associated with the resource group. **Range**: The value can contain digits, letters, or hyphens (-). It can be **0** (default enterprise project ID).
relation_ids	Array of strings	**Definition** ID of the enterprise project from which resources in the resource group come.
tags	Array of **ResourceGroupTagRelation** objects	**Definition** Resource group tag.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-148 ResourceGroup

Parameter	Type	Description
namespace	String	**Definition** Resource type, that is, namespace. For example, the namespace of an ECS is **SYS.ECS**. For the namespace of each service, see the **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). **Default Value** N/A
dimensions	Array of **MetricsDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.
status	String	**Definition** Health status of a resource group. **Constraints** N/A **Range** • **health**: No alarms have been generated for the resource group. • **unhealth**: An alarm or alarms have been generated for a resource or resources in the resource group. • **no_alarm_rule**: No alarm rules have been set for the resource group. **Default Value** N/A
event_type	Integer	Event type. The default value is **0**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-149 MetricsDimension

Parameter	Type	Description
name	String	**Definition**: Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service metric dimension**. **Constraints** N/A **Range**: The value starts with a letter and can contain letters, digits, underscores (_), or hyphens (-). The length is [1,32] characters. **Default Value**: N/A
value	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Table 5-150 MetaData

Parameter	Type	Description
count	Integer	**Definition**: Number of records that can be returned. **Constraints**: N/A **Range**: [0,2147483647] **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
total	Integer	**Definition**: Total number of records. **Constraints**: N/A **Range**: [0,2147483647] **Default Value**: N/A
marker	String	**Definition**: Start of the next page, which is used for pagination. **Constraints**: N/A **Range**: [1,9999] **Default Value**: N/A

Table 5-151 ResourceGroupTagRelation

Parameter	Type	Description
key	String	**Definition** TMS tag key specifications. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A

Parameter	Type	Description
operator	String	**Definition** Tag operator, which indicates the relationship between the tag key and value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal. If **operator** is **equal** and **value** is an empty string, all tag values of the key are matched. • **all**: all **Default Value** N/A
value	String	**Definition** TMS tag value specifications. **Constraints** N/A **Range** 0 to 43 characters **Default Value** N/A

Status code: 400

Table 5-152 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-153 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-154 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

Table 5-155 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-156 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

Table 5-157 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-158 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
/V1.0/{project_id}/resource-groups/rg16044763786104XvXvl00a
```

Example Responses

Status code: 200

OK

```
{
  "group_name" : "ResourceGroup-Test-01",
  "resources" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "6cffb0bd-fd37-400f-ae6f-8f4be021ff7e"
    } ],
    "status" : "health",
    "event_type" : 0
  }, {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "e37d6238-9dd3-4720-abcc-eb9f8fb08ca0"
    } ],
    "status" : "health",
    "event_type" : 0
  } ],
  "create_time" : 1604476378000,
  "group_id" : "rg16044763786104XvXvl00a",
  "status" : "health",
  "meta_data" : {
    "count" : 0,
    "marker" : "",
    "total" : 2
  },
  "enterprise_project_id" : "0"
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Code	Description
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

5.6.2 Creating a Resource Group

Function

This API is used to create a resource group. With resource groups, you can easily manage resources by service and view monitoring and alarm information by group.

URI

POST /V1.0/{project_id}/resource-groups

Table 5-159 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 5-160 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

Table 5-161 Request body parameters

Parameter	Mandatory	Type	Description
group_name	Yes	String	**Definition** Resource group name. **Constraints** N/A **Range** The value allows 1 to 128 characters. It can only contain letters, digits, hyphens (-), and underscores (_). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
resources	No	Array of **CreateResourceGroup** objects	**Definition** Resource details when resources are manually added. **Constraints** A maximum of 1,000 resources are allowed.
type	No	String	**Definition** Method for adding resources to a resource group. **Constraints** N/A **Range** The value can only be **EPS** (synchronizing resources from enterprise projects) or **TAG** (dynamic tag matching). If this parameter is not specified, resources are manually added. **Default Value** N/A
relation_ids	No	Array of strings	**Definition** ID of the enterprise project from which resources in the resource group come. **Constraints** This parameter is mandatory when **type** is set to **EPS**. The value can contain a maximum of 50 enterprise project IDs.
tags	No	Array of **ResourceGroupTagRelation** objects	**Definition** Associated tags during dynamic tag matching. **Constraints** This parameter is mandatory when **type** is set to **TAG**. A maximum of 50 tags are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition** ID of the enterprise project that a resource group belongs to. **Constraints** N/A **Range** The value can contain digits, letters, or hyphens (-). It can be **0** (default enterprise project ID). **Default Value** N/A

Table 5-162 CreateResourceGroup

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). It must contain 3 to 32 characters. **Default Value** N/A
dimensions	Yes	Array of **MetricsDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-163 MetricsDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service metric dimension**. **Constraints** N/A **Range**: The value starts with a letter and can contain letters, digits, underscores (_), or hyphens (-). The length is [1,32] characters. **Default Value**: N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-164 ResourceGroupTagRelation

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** TMS tag key specifications. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A
operator	No	String	**Definition** Tag operator, which indicates the relationship between the tag key and value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal. If **operator** is **equal** and **value** is an empty string, all tag values of the key are matched. • **all**: all **Default Value** N/A
value	No	String	**Definition** TMS tag value specifications. **Constraints** N/A **Range** 0 to 43 characters **Default Value** N/A

Response Parameters

Status code: 201

Table 5-165 Response body parameters

Parameter	Type	Description
group_id	String	**Definition** Resource group ID, for example, **rg1606377637506DmVOENVyL**. **Constraints** N/A **Range** The value starts with **rg** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value** N/A

Status code: 400

Table 5-166 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-167 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-168 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

Table 5-169 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-170 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

Table 5-171 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-172 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
{
  "group_name" : "Resource-Group-Test01",
  "resources" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "063a83da-a2b5-4630-ab6b-9b4fcfc261ea"
    } ]
  }, {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "518ace88-abde-46bf-829b-0d1f0f2fb2e9"
    } ]
  } ]
}
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Responses

Status code: 201

OK

```
{
  "group_id" : "rg1606377637506DmVOENVyL"
}
```

Status Codes

Status Code	Description
201	OK
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

5.6.3 Updating a Resource Group

Function

This API is used to update a resource group. With resource groups, you can manage resources by service and view monitoring and alarm information by group.

URI

PUT /V1.0/{project_id}/resource-groups/{group_id}

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-173 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
group_id	Yes	String	**Definition** Resource group ID. **Constraints** N/A **Range** The value starts with **rg** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 5-174 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

Table 5-175 Request body parameters

Parameter	Mandatory	Type	Description
group_name	Yes	String	**Definition** Resource group name. **Constraints** N/A **Range** The value allows 1 to 128 characters. It can only contain letters, digits, hyphens (-), and underscores (_). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
resources	No	Array of **CreateResourceGroup** objects	**Definition** Resource details when resources are manually added. **Constraints** A maximum of 1,000 resources are allowed.
type	No	String	**Definition** Method for adding resources to a resource group. **Constraints** N/A **Range** The value can only be **EPS** (synchronizing resources from enterprise projects) or **TAG** (dynamic tag matching). If this parameter is not specified, resources are manually added. **Default Value** N/A
relation_ids	No	Array of strings	**Definition** ID of the enterprise project from which resources in the resource group come. **Constraints** This parameter is mandatory when **type** is set to **EPS**. The value can contain a maximum of 50 enterprise project IDs.
tags	No	Array of **ResourceGroupTagRelation** objects	**Definition** Associated tags during dynamic tag matching. **Constraints** This parameter is mandatory when **type** is set to **TAG**. A maximum of 50 tags are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-176 CreateResourceGroup

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). It must contain 3 to 32 characters. **Default Value** N/A
dimensions	Yes	Array of **MetricsDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-177 MetricsDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service metric dimension**. **Constraints** N/A **Range**: The value starts with a letter and can contain letters, digits, underscores (_), or hyphens (-). The length is [1,32] characters. **Default Value**: N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-178 ResourceGroupTagRelation

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** TMS tag key specifications. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A
operator	No	String	**Definition** Tag operator, which indicates the relationship between the tag key and value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal. If **operator** is **equal** and **value** is an empty string, all tag values of the key are matched. • **all**: all **Default Value** N/A
value	No	String	**Definition** TMS tag value specifications. **Constraints** N/A **Range** 0 to 43 characters **Default Value** N/A

Response Parameters

Status code: 204

OK

Status code: 400

Table 5-179 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-180 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-181 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

Table 5-182 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-183 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-184 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-185 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
{
  "group_name" : "Resource-Group-Update-Test01",
  "resources" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "063a83da-a2b5-4630-ab6b-9b4fcfc261ea"
    } ]
  }, {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "518ace88-abde-46bf-829b-0d1f0f2fb2e9"
    } ]
  }, {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "675006b5-477a-4aab-948c-0aa467de9c68"
    } ]
  } ]
}
```

Example Responses

None

Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Code	Description
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

5.6.4 Deleting a Resource Group

Function

This API is used to delete a resource group.

URI

DELETE /V1.0/{project_id}/resource-groups/{group_id}

- Parameter description

  Table 5-186 Parameter description

Parameter	Type	Mandatory	Description
project_id	String	Yes	Specifies the project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.
group_id	String	Yes	Specifies the resource group ID.

- Request example
  DELETE https://{Cloud Eye endpoint}/V1.0/{project_id}/resource-groups/{group_id}

Request

None

Response

None

Returned Value

- Normal

  204

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.6.5 Query Resource Groups

Function

This API is used to query all resource groups you created.

URI

GET /V1.0/{project_id}/resource-groups

- Parameter description

Table 5-187 Parameter description

Parameter	Type	Mandatory (Yes/No)	Description
project_id	String	Yes	Specifies the project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.

Parameter	Type	Mandatory (Yes/No)	Description
group_name	String	No	Specifies the resource group, for example, **Resource-Group-ECS-01**.
group_id	String	No	Specifies the resource group ID, for example, **rg1603786526428bWbVmk4rP**.
status	String	No	Specifies the resource group status, which can be **health**, **unhealth**, or **no_alarm_rule**. • **health**: No alarms have been generated for the resource group. • **unhealth**: An alarm or alarms have been generated for a resource or resources in the resource group. • **no_alarm_rule**: No alarm rules have been set for the resource group.
start	Integer	No	Specifies the start value of pagination. The value is an integer. The default value is **0**.
limit	Integer	No	Specifies the maximum number of records that can be queried at a time. Supported range: **1** to **100** (default)

- Example
  GET https://{Cloud Eye endpoint}/V1.0/{project_id}/resource-groups

Request

None

Response

- Response parameters

  Table 5-188 Parameter description

Parameter	Type	Mandatory (Yes/No)	Description
resource_groups	Array of objects	No	Specifies information about one or more resource groups. For details, see **Table 5-189**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Mandatory (Yes/No)	Description
meta_data	MetaData object	No	Specifies the number of metadata records in the query result. For details, see **Table 5-191**.

Table 5-189 resource_groups data structure description

Parameter	Type	Mandatory (Yes/No)	Description
group_name	String	No	Specifies the resource group name, for example, **ResourceGroup-Test01**.
group_id	String	No	Specifies the resource group ID, for example, **rg1603786526428bWbVmk4rP**.
create_time	Long	No	Specifies the time the resource group is created. The time is a UNIX timestamp and the unit is ms. Example: **1603819753000**
relation_ids	Array of strings	No	Specifies the enterprise project IDs.
type	String	No	Specifies the method of adding or matching resources to a resource group. The value can be: **EPS**: matching resources by enterprise project. **TAG**: matching resources by tag. **NAME**: matching resources by instance name. **COMB**: matching resources by multiple criteria. **Manual**: add resources manually. If the response parameter is empty, resources are manually added. Minimum length: 0 character Maximum length: 32 characters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Mandatory (Yes/No)	Description
resources	Array of Resource objects	No	Specifies information about one or more resources. Array length: 0 to 20
instance_statistics	InstanceStatistics object	No	Specifies the resource statistics in the resource group. For details, see **Table 5-190**.
status	String	No	Specifies the resource group status, which can be **health**, **unhealth**, or **no_alarm_rule**. • **health**: No alarms have been generated for the resource group. • **unhealth**: An alarm or alarms have been generated for a resource or resources in the resource group. • **no_alarm_rule**: No alarm rules have been set for the resource group.
enterprise_project_id	String	No	Specifies the enterprise project associated with the resource group. The default value **0** indicates enterprise project **default.**

Table 5-190 instance_statistics data structure description

Parameter	Type	Mandatory (Yes/No)	Description
unhealth	Integer	No	Specifies the number of resources in the **Alarm** state in the resource group.
total	Integer	No	Specifies the total number of resources in the resource group.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Mandatory (Yes/No)	Description
type_statistics	Integer	No	Specifies the total number of resource types in the resource group. For example, if ECS, EIP and bandwidth are added to the resource group, the **type_statistics** value is **2**.

Table 5-191 meta_data data structure description

Parameter	Type	Mandatory (Yes/No)	Description
total	Integer	No	Specifies the total number of query results.

– Example response


```
{
 "resource_groups": [
  {
   "group_name": "ResourceGroup-Test01",
   "create_time": 1606374365000,
   "group_id": "rg16063743652226ew93e64p",
   "relation_ids": ["0"],
   "instance_statistics": {
    "unhealth": 2,
    "total": 10,
    "type_statistics": 1
   },
   "status": "unhealth",
   "enterprise_project_id": "0",
   "type": "TAG",
   "resources": []
  },
  {
   "group_name": "RS",
   "create_time": 1606327955000,
   "group_id": "rg1606327955657LRj1lrE4y",
   "relation_ids": ["0"],
   "instance_statistics": {
    "unhealth": 0,
    "total": 2,
    "type_statistics": 1
   },
   "status": "no_alarm_rule",
   "enterprise_project_id": "0",
   "type": "TAG",
   "resources": []
  },
  {
   "group_name": "RS",
   "create_time": 1606327947000,
```

```
    "group_id": "rg1606327947514v9OWqAD3N",
    "relation_ids": ["0"],
    "instance_statistics": {
      "unhealth": 0,
      "total": 2,
      "type_statistics": 1
    },
    "status": "no_alarm_rule",
    "enterprise_project_id": "0",
    "type": "TAG",
    "resources": []
  },
  {
    "group_name": "RS",
    "create_time": 1606327946000,
    "group_id": "rg1606327946625PYogr059N",
    "relation_ids": ["0"],
    "instance_statistics": {
      "unhealth": 0,
      "total": 2,
      "type_statistics": 1
    },
    "status": "no_alarm_rule",
    "enterprise_project_id": "0",
    "type": "TAG",
    "resources": []
  },
  {
    "group_name": "ResourceGroupCorrect_2",
    "create_time": 1606325669000,
    "group_id": "rg1606325669900Rk4eKkLMZ",
    "relation_ids": ["0"],
    "instance_statistics": {
      "unhealth": 0,
      "total": 1,
      "type_statistics": 1
    },
    "status": "no_alarm_rule",
    "enterprise_project_id": "0",
    "type": "TAG",
    "resources": []
  }
 ],
 "meta_data": {
  "total": 5
 }
}
```


Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Returned Value	Description
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.7 Event Monitoring

5.7.1 Reporting an Event

Function

This API is used to report custom events.

URI

POST /V1.0/{project_id}/events

Table 5-192 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 5-193 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

Table 5-194 Request body parameters

Parameter	Mandatory	Type	Description
[items]	Yes	Array of **CreateEventsRequestBody** objects	This API is used to report custom events. Request parameter.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-195 CreateEventsRequestBody

Parameter	Mandatory	Type	Description
event_name	Yes	String	**Definition**: Event name. **Constraints**: N/A **Range**: The value must start with a letter and can contain 1 to 64 characters. It can only contain letters, digits, and underscores (_). **Default Value**: N/A
event_source	Yes	String	**Definition**: Event source. **Constraints**: N/A **Range**: The value is in the service.item format. Set this parameter based on the service needs. It can contain 3 to 32 characters. **service** and **item** each must start with a letter and contain only letters, digits, and underscores (_). **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
time	Yes	Long	**Definition**: Time when an event occurred. The value is a UNIX timestamp in milliseconds. **Constraints**: Since there is a latency between the client and the server, the timestamp when data was inserted must be within the time range [Current time – 1h + 10s, Current time + 10 mins – 10s]. In this way, the data will be inserted to the database without being affected by the latency. **Range**: The timestamp when data was inserted must be within the time range [Current time – 1h + 10s, Current time + 10 mins – 10s]. **Default Value**: N/A
detail	Yes	**EventItemDetail** object	**Definition**: Event details. **Constraints**: N/A

Table 5-196 EventItemDetail

Parameter	Mandatory	Type	Description
content	No	String	**Definition**: Event content. **Constraints**: N/A **Range**: [0,4096] **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
group_id	No	String	**Definition**: Resource group that the event belongs to. This ID must be the that of an existing resource group. To query the group ID, you can: 1. Log in to the management console. 2. Choose **Cloud Eye**. 3. Choose **Resource Groups** in the navigation pane. Obtain the group ID in the **Name/ID** column. **Constraints**: N/A **Range**: 24 characters **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
resource_id	No	String	**Definition**: Resource ID. To query the resource ID, you can: 1. Log in to the management console. 2. Choose **Compute** > **Elastic Cloud Server**. On the **Resource Overview** page, obtain the resource ID. **Constraints**: N/A **Range**: The value allows a maximum of 128 characters and can only contain letters, digits, underscores (_), hyphens (-), and colons (:). Example: **6a69bf28-ee62-49f3-9785-845dacd799ec** **Default Value**: N/A
resource_name	No	String	**Definition**: Resource name. **Constraints**: N/A **Range**: The value allows a maximum of 128 characters and can contain letters, digits, underscores (_), hyphens (-), and periods (.). **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
event_state	No	String	**Definition**: Event status. **Constraints**: N/A **Range**: The value can be: • **normal**: normal • **warning**: abnormal • **incident**: critical **Default Value**: N/A
event_level	No	String	**Definition**: Event severity. **Constraints**: N/A **Range**: The value can be: • **Critical** • **Major** • **Minor** • **Info** **Default Value**: N/A
event_user	No	String	**Definition**: Event user. **Constraints**: N/A **Range**: The value allows 0 to 64 characters and can contain letters, digits, underscores (_), hyphens (-), and spaces. **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
event_type	No	String	**Definition**: Event type. **Constraints**: **EVENT.SYS** indicates a system event, which cannot be reported by users. Only **EVENT.CUSTOM** can be transferred. **Range**: The value can be: • **EVENT.SYS**: system events • **EVENT.CUSTOM**: custom events **Default Value**: N/A
sub_event_type	No	String	**Definition**: Event subcategory. **Constraints**: N/A **Range**: The value can be: • **SUB_EVENT.OPS**: O&M event • **SUB_EVENT.PLAN**: planned event • **SUB_EVENT.CUSTOM**: custom event **Default Value**: N/A
dimensions	No	Array of **MetricsDimension** objects	**Definition**: Event dimension. Resource information is described by dimension. Event alarm rules can be configured by dimension to monitor specified resources and resource groups. **Constraints**: A maximum of four dimensions are supported.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-197 MetricsDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service metric dimension**. **Constraints** N/A **Range**: The value starts with a letter and can contain letters, digits, underscores (_), or hyphens (-). The length is [1,32] characters. **Default Value**: N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Response Parameters

Status code: 201

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-198 Response body parameters

Parameter	Type	Description
event_id	String	**Definition**: Event ID. **Range**: N/A
event_name	String	**Definition**: Event name. **Range**: N/A

Status code: 400

Table 5-199 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-200 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-201 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

Status code: 408

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-202 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-203 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

Table 5-204 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-205 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
[ {
  "event_name" : "systemInvaded",
  "event_source" : "financial.Sytem",
  "time" : 1522121194000,
  "detail" : {
    "content" : "The financial system was invaded",
    "group_id" : "rg15221211517051YWWkEnVd",
    "resource_id" : "1234567890sjgggad",
    "resource_name" : "ecs001",
    "event_state" : "normal",
    "event_level" : "Major",
    "event_user" : "xiaokong"
  }
}, {
  "event_name" : "systemInvaded",
  "event_source" : "financial.Sytem",
  "time" : 1522121194020,
  "detail" : {
```

```
    "content" : "The financial system was invaded",
    "group_id" : "rg15221211517051YWWkEnVd",
    "resource_id" : "1234567890sjgggad",
    "resource_name" : "ecs001",
    "event_state" : "normal",
    "event_level" : "Major",
    "event_user" : "xihong"
  }
} ]
```

Example Responses

Status code: 201

Created

```
[ {
  "event_id" : "evdgiqwgedkkcvhdjcdu346",
  "event_name" : "systemInvaded"
}, {
  "event_id" : "evdgiqwgedkkcvhdjcdu347",
  "event_name" : "systemParalysis"
} ]
```

Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

5.7.2 Querying Events

Function

This API is used to query events, including system events and custom events.

URI

GET /V1.0/{project_id}/events

- Parameter description

Table 5-206 Parameter description

Parameter	Type	Mandatory	Description
project_id	String	Yes	**Definition** Project ID, which is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
event_type	String	No	**Definition** Event type. **Constraints** N/A **Range** The value can be: • **EVENT.SYS**: system event • **EVENT.CUSTOM**: custom event **Default Value** N/A
event_name	String	No	**Definition** Event name. The name can be a system event name or a custom event name. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Mandatory	Description
from	Integer	No	**Definition** Start time of the query. The value is a UNIX timestamp, in milliseconds. Example: **1605952700911** **Constraints** N/A **Range** N/A **Default Value** N/A
to	Integer	No	**Definition** End time of the query. The value is a UNIX timestamp, in milliseconds. Example: **1606557500911** **Constraints** **from** must be earlier than **to**. **Range** N/A **Default Value** N/A
start	Integer	No	**Definition** Pagination start value. The value is an integer. **Constraints** N/A **Range** ≥ 0 **Default Value** 0
limit	Integer	No	**Definition** Maximum number of records that can be queried at a time. **Constraints** N/A **Range** (0,100] **Default Value** 100

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

- Example
  GET https://{Cloud Eye endpoint}/V1.0/{project_id}/events

Request

None

Response

- Response parameters

Table 5-207 Parameter description

Parameter	Type	Mandatory	Description
events	Array of Events objects	No	**Definition** One or more pieces of event data. For details, see **Table 5-208**.
meta_data	MetaData object	No	**Definition** Number of metadata records in the query results. For details, see **Table 5-209**.

Table 5-208 events field description

Parameter	Type	Mandatory	Description
event_name	String	No	**Definition** Event name. **Range** N/A
event_type	String	No	**Definition** Event type. **Range** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Mandatory	Description
event_count	Integer	No	**Definition** Number of times that the event occurs within the specified time range. **Range** N/A
latest_occur_time	Long	No	**Definition** Time when the event last occurred. **Range** N/A
latest_event_source	String	No	**Definition** Event source. If the event is a system event, the source is the namespace of each service. To view the namespace of each service, see **Services Interconnected with Cloud Eye**. If the event is a custom event, the event source is defined by the user. **Range** N/A

Table 5-209 meta_data data structure description

Parameter	Type	Mandatory	Description
total	Integer	No	**Definition** Total number of events. **Range** N/A

- Example response

```
{
 "events": [
  {
    "event_name": "rebootServer",
    "event_type": "EVENT.SYS",
    "event_count": 5,
    "latest_occur_time": 1606302400000,
    "latest_event_source": "SYS.ECS"
  },
  {
    "event_name": "deleteVolume",
```

```
    "event_type": "EVENT.SYS",
    "event_count": 6,
    "latest_occur_time": 1606300359126,
    "latest_event_source": "SYS.EVS"
  },
  {
    "event_name": "event_001",
    "event_type": "EVENT.CUSTOM",
    "event_count": 4,
    "latest_occur_time": 1606499035522,
    "latest_event_source": "TEST.System"
  }
 ],
 "meta_data": {
   "total": 10
 }
}
```


Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	The authentication information is not provided or is incorrect.
403 Forbidden	Access to the requested page is forbidden.
408 Request Timeout	The request timed out.
429 Too Many Requests	Concurrent requests are excessive.
500 Internal Server Error	Failed to complete the request because of an internal service error.
503 Service Unavailable	The service is currently unavailable.

Error Codes

See **Error Codes**.

5.7.3 Querying the Monitoring Details of an Event

Function

This API is used to query details of an event based on the event name.

URI

GET /V1.0/{project_id}/event/{event_name}

Table 5-210 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
event_name	Yes	String	**Definition**: Event name. The name can be a system event name or a custom event name. **Constraints**: N/A **Range**: 1 to 64 characters **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-211 Query Parameters

Parameter	Mandatory	Type	Description
event_type	Yes	String	**Definition**: Event type. **Constraints**: N/A **Range**: The value can be: • **EVENT.SYS**: system events • **EVENT.CUSTOM**: custom events **Default Value**: N/A
sub_event_type	No	String	**Definition**: Event subcategory. **Constraints**: N/A **Range**: The value can be: • **SUB_EVENT.OPS**: O&M events • **SUB_EVENT.PLAN**: planned events • **SUB_EVENT.CUSTOM**: custom events **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
event_source	No	String	**Definition**: Event source. The value is the namespace of each cloud service. For details, see **Services Interconnected with Cloud Eye**. **Constraints**: N/A **Range**: The value can contain 0 to 32 characters. A regular expression matches a string that consists of letters, digits, and underscores (_), with a letter at the beginning and a dot (.) in the middle. **Default Value**: N/A
event_level	No	String	**Definition**: Event severity. **Constraints**: N/A **Range**: The value can be: • **Critical** • **Major** • **Minor** • **Info** **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
event_user	No	String	**Definition**: Name of the user who reports the event monitoring data. It can also be a project ID. **Constraints**: N/A **Range**: The value can contain 0 to 64 characters. A regular expression that matches strings made up of letters (optional), digits, underscores (_), hyphens (-), slashes (/), spaces, at symbols (@), or dots (.). **Default Value**: N/A
event_state	No	String	**Definition**: Event status **Constraints**: N/A **Range**: The value can be: • **normal** • **warning** • **incident** **Default Value**: N/A
from	No	Long	**Definition**: Start time of the query. The value is a UNIX timestamp in milliseconds. Example: **1605952700911** **Constraints**: N/A **Range**: N/A **Default Value**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
to	No	Long	**Definition**: End time of the query. The value is a UNIX timestamp in milliseconds. **Constraints**: The time of **from** must be earlier than that of **to**. **Range**: N/A **Default Value**: N/A
start	No	Long	**Definition**: Pagination start value. **Constraints**: N/A **Range**: N/A **Default Value**: 0
limit	No	Integer	**Definition**: Maximum number of records that can be queried at a time. **Constraints**: N/A **Range**: The value is an integer ranging from **1** to **100**. **Default Value**: 100

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 5-212 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints** N/A **Range** 1 to 64 characters **Default Value** The default value is **application/json; charset=UTF-8**. For APIs used to upload objects or images, the MIME type varies with the flow type.
X-Auth-Token	No	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

Response Parameters

Status code: 200

Table 5-213 Response body parameters

Parameter	Type	Description
event_name	String	**Definition**: Event name, which can be the name of a system event or a custom event. **Range**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
event_type	String	**Definition**: Event type. **Range**: The value can be: • **EVENT.SYS**: system events • **EVENT.CUSTOM**: custom events
sub_event_type	String	**Definition**: Event subcategory. **Range**: The value can be: If the event type is system event, the value can be **SUB_EVENT.OPS** or **SUB_EVENT.PLAN**. If the event type is custom event, the value is **SUB_EVENT.CUSTOM**. • **SUB_EVENT.OPS**: O&M event • **SUB_EVENT.PLAN**: planned event • **SUB_EVENT.CUSTOM**: custom event
event_users	Array of strings	**Definition**: Name of the user who reports the event. It can also be a project ID. **Range**: N/A
event_sources	Array of strings	**Definition**: Event source. If the event is a system event, the source is the namespace of each service. For details, see "Services Interconnected with Cloud Eye". If the event is a custom event, the event source is defined by the user. **Range**: N/A
event_info	Array of **EventInfoDetail-Resp** objects	**Definition**: Details of one or more events.
meta_data	**TotalMetaData** object	**Definition**: Number of metadata records in the query results.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-214 EventInfoDetailResp

Parameter	Type	Description
event_name	String	**Definition**: Event name. **Range**: The value must start with a letter and allow 1 to 64 characters. It can only contain letters, digits, and underscores (_).
event_source	String	**Definition**: Event source. **Range**: The value is in the service.item format. It allows 3 to 32 characters. **service** and **item** each must start with a letter and contain only letters, digits, and underscores (_).
time	Long	**Definition**: Time when an event occurred. The value is a UNIX timestamp in milliseconds. **Range**: Since there is a latency between the client and the server, the timestamp when data was inserted must be within the time range [Current time – 1h + 20s, Current time + 10 mins – 20s]. In this way, the data will be inserted to the database without being affected by the latency.
detail	**ShowEventItemDetailResp** object	**Definition**: Event details.
event_id	String	**Definition**: Event ID. **Range**: N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 5-215 ShowEventItemDetailResp

Parameter	Type	Description
content	String	**Definition**: Event content. **Range**: 1 to 4,096 characters
group_id	String	**Definition**: Resource group that the event belongs to. **Range**: 24 characters
resource_id	String	**Definition**: Resource ID. **Range**: 1 to 128 characters
resource_name	String	**Definition**: Resource name. **Range**: 1 to 128 characters
event_state	String	**Definition**: Event status. **Range**: The value can be: • **normal** • **warning** • **incident**
event_level	String	**Definition**: Event severity. **Range**: The value can be: • **Critical** • **Major** • **Minor** • **Info**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
event_user	String	**Definition**: Event user. **Range**: The value allows 0 to 64 characters and can contain underscores (_), hyphens (-), slashes (/), at signs (@), and periods (.).
event_type	String	**Definition**: Event type. **Range**: The value can be: • **EVENT.SYS**: system events • **EVENT.CUSTOM**: custom events
dimensions	Array of **MetricsDimensionResp** objects	**Definition**: Event dimension. Resource information is described by dimension. Event alarm rules can be configured by dimension to monitor specified resources and resource groups. **Range**: A maximum of four dimensions are supported.

Table 5-216 MetricsDimensionResp

Parameter	Type	Description
name	String	**Definition**: Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service metric dimension**. **Range**: The value starts with a letter and can contain letters, digits, underscores (_), or hyphens (-). The length is [1,32] characters.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
value	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Range** 1 to 256 characters

Table 5-217 TotalMetaData

Parameter	Type	Description
total	Integer	**Definition** Total number of records. **Range** [0,2147483647]

Status code: 400

Table 5-218 Response body parameters

Parameter	Type	Description
-	String	Request error.

Status code: 401

Table 5-219 Response body parameters

Parameter	Type	Description
-	String	The authentication information is not provided or is incorrect.

Status code: 403

Table 5-220 Response body parameters

Parameter	Type	Description
-	String	Access to the requested page is forbidden.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 408

Table 5-221 Response body parameters

Parameter	Type	Description
-	String	The request timed out.

Status code: 429

Table 5-222 Response body parameters

Parameter	Type	Description
-	String	Too many requests.

Status code: 500

Table 5-223 Response body parameters

Parameter	Type	Description
-	String	Failed to complete the request because of an internal service error.

Status code: 503

Table 5-224 Response body parameters

Parameter	Type	Description
-	String	The system is currently unavailable.

Example Requests

```
/V1.0/{project_id}/events/rebootServer?
event_type=EVENT.SYS&start=0&limit=10&from=1603973487399&to=1606565487399
```

Example Responses

Status code: 200

OK

```
{
  "event_name" : "rebootServer",
  "event_type" : "EVENT.SYS",
  "event_users" : [ "" ],
  "event_sources" : [ "SYS.ECS" ],
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
 "event_info" : [ {
   "event_id" : "ev1606302402256R6doP5YeZ",
   "event_name" : "rebootServer",
   "event_source" : "SYS.ECS",
   "time" : 1606302400000,
   "detail" : {
     "content" : "{\"resourceSpecCode\":\"kc1.4xlarge.2.linux\",\"enterpriseProjectId\":\"6efb843e-391a-46a8-
afc8-7fe51c9dd575\"}",
     "group_id" : "",
     "resource_id" : "ef8dad27-0488-4de7-bb43-1a0df9806d90",
     "resource_name" : "CES-POROS-0001",
     "event_state" : "normal",
     "event_level" : "Minor",
     "event_user" : "",
     "event_type" : "EVENT.SYS",
     "dimensions" : [ {
       "name" : "cluster_id",
       "value" : "xxxxxxxx002"
     } ]
   }
 }, {
   "event_id" : "ev1606296088071wGoAOxVYa",
   "event_name" : "rebootServer",
   "event_source" : "SYS.ECS",
   "time" : 1606296086000,
   "detail" : {
     "content" : "{\"resourceSpecCode\":\"kc1.4xlarge.2.linux\",\"enterpriseProjectId\":\"6efb843e-391a-46a8-
afc8-7fe51c9dd575\"}",
     "group_id" : "",
     "resource_id" : "ef8dad27-0488-4de7-bb43-1a0df9806d90",
     "resource_name" : "CES-POROS-0001",
     "event_state" : "normal",
     "event_level" : "Minor",
     "event_user" : "",
     "event_type" : "EVENT.SYS",
     "dimensions" : [ {
       "name" : "cluster_id",
       "value" : "xxxxxxxx002"
     } ]
   }
 }, {
   "event_id" : "ev1604654426090g7g37E6Yb",
   "event_name" : "rebootServer",
   "event_source" : "SYS.ECS",
   "time" : 1604654425000,
   "detail" : {
     "content" : "{\"resourceSpecCode\":\"c6.4xlarge.2.linux\",\"enterpriseProjectId\":\"129559eb-
f795-4b5f-9e46-cbd43a462362\"}",
     "group_id" : "",
     "resource_id" : "0bfa63ee-31f5-40a9-b992-50992c80c58a",
     "resource_name" : "ndrv2-pod-ops-0001",
     "event_state" : "normal",
     "event_level" : "Minor",
     "event_user" : "",
     "event_type" : "EVENT.SYS",
     "dimensions" : [ {
       "name" : "cluster_id",
       "value" : "xxxxxxxx002"
     } ]
   }
 } ],
 "meta_data" : {
   "total" : 5
 }
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
408	Request Timeout
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

6 API V2

6.1 Alarm Rules

6.1.1 Creating an Alarm Rule (Recommended)

Function

This API is used to create alarm rules.

URI

POST /v2/{project_id}/alarms

Table 6-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-2 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-3 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Alarm name. **Constraints** N/A **Range** The value allows 1 to 128 characters and can contain digits, letters, underscores (_), and hyphens (-). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
description	No	String	**Definition** Alarm description. **Constraints** N/A **Range** [0,256] **Default Value** N/A
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 0 to 32 characters. **Default Value** N/A
resource_group_id	No	String	**Definition** Resource group ID. **Constraints** N/A **Range** The value starts with **rg** and is followed by 22 characters that may include letters, digits, or a combination of both. It can contain 2 to 24 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
resources	Yes	Array<Array<Dimension>>	**Definition** Resource list. **Constraints** If an alarm rule is created for all resources or resources in a resource group, leave the resource dimension blank. If the alarm rule is created for specified resources, the resource dimension value is mandatory, and you can specify multiple resources to be monitored at a time. A maximum of 1,000 resource dimensions can be specified.
policies	No	Array of AlarmRulePolicy objects	**Definition** Alarm policy. **Constraints** This parameter is mandatory when **alarm_template_id** is left blank. Otherwise, leave it empty. A maximum of 50 policies can be configured.
type	Yes	String	**Definition** Alarm rule type. **Constraints** N/A **Range** The value can be: • **ALL_INSTANCE**: alarms for all resources • **RESOURCE_GROUP**: alarms for resource groups • **MULTI_INSTANCE**: alarms for specified resources • **EVENT.SYS**: system event alarms • **EVENT.CUSTOM**: custom event alarms • **DNSHealthCheck**: health check alarms **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_notifications	No	Array of **Notification** objects	**Definition**: Notification group or topic subscription for alarm notifications. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.
ok_notifications	No	Array of **Notification** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.
notification_begin_time	No	String	**Definition** Time when alarm notifications were enabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A
notification_end_time	No	String	**Definition** Time when alarm notifications were disabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
effective_timezone	No	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A
enterprise_project_id	No	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value can only contain lowercase letters, digits, and hyphens (-). **Default Value** N/A
enabled	Yes	Boolean	**Definition** Whether to enable the alarm rule. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notification_enabled	Yes	Boolean	**Definition** Whether to enable alarm notifications. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true
alarm_template_id	No	String	**Definition** ID of an alarm template associated with an alarm rule. If this parameter is specified, the policy associated with the alarm rule changes accordingly with the alarm template policy. **Constraints** N/A **Range** The value starts with **at** and allows 2 to 64 characters. It can only contain letters and digits. **Default Value** N/A
tags	No	Array of **ResourceTag** objects	**Definition** Tenant tags. **Constraints** A maximum of 20 tags can be added.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
product_name	No	String	**Definition** Product name. It needs to be specified when product alarm rules with multiple dimensions are created. Generally, the value format is Service namespace,First-level dimension of the service, for example, **SYS.ECS,instance_id**. **Constraints** N/A **Range** [0,128] **Default Value** N/A
resource_level	No	String	**Definition** Product alarm rules with multiple dimensions need to be specified as product-level rules. If the value of **resource_level** is **product**, it refers to the cloud product level. If the value of **resource_level** is **dimension** or not specified, it refers to the sub-dimension level. **Constraints** N/A **Range** The value can be: • **product**: cloud product • **dimension**: specific dimension **Default Value** **dimension**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-4 Dimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of the resource. For example, the dimension of an ECS is **instance_id**. For details about the metric dimension name of each service resource, see **Service Dimension Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	No	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-5 AlarmRulePolicy

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
period	Yes	Integer	**Definition** Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Constraints** N/A **Range** The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
filter	Yes	String	**Definition** Aggregation method. **Constraints** N/A **Range** **average**, **variance**, **min**, **max**, or **sum** **Default Value** N/A
comparison_operator	Yes	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
value	No	Number	**Definition** Alarm threshold. For specific thresholds, see the value range of each metric in the appendix. **Constraints** If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range** **-1.7976931348623157e+108** to **1.7976931348623157e+108** **Default Value** N/A
hierarchical_value	No	**HierarchicalValue** object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	No	String	**Definition** Data unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
count	Yes	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
suppress_duration	No	Integer	**Definition** Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Constraints** N/A **Range** The value can be: • **0**: An alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
			• **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met. **Default Value** N/A
level	No	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be **1** (critical), ** 2** (major), **3** (minor), or **4** (informational). **Default Value** 2
namespace	No	String	**Definition** **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 0 to 32 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dimension_name	No	String	**Definition** Metric dimension name. For details, see **Service Dimension Names**. **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. **Constraints** N/A **Range** A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios and **instance_id,disk** for multi-dimension scenarios **Default Value** N/A

Table 6-6 HierarchicalValue

Parameter	Mandatory	Type	Description
critical	No	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
major	No	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
minor	No	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	No	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-7 Notification

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Notification type. **Constraints** N/A **Range** The value can be: • **notification**: SMN notifications • **contact**: account contacts • **contactGroup**: notification groups • autoscaling: AS notifications. This value is used only for AS. • **groupwatch**: deprecated • **ecsRecovery**: deprecated • **iecAction**: deprecated **Default Value** N/A
notification_list	Yes	Array of strings	**Definition** Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics". **Constraints** If **type** is set to **notification**, the value of **notification_list** cannot be left blank. If **type** is set to **autoscaling**, the value of **notification_list** must be left blank. If **notification_enabled** is set to **true**, you must specify either **alarm_notifications** or **ok_notifications**. If both **alarm_notifications** and **ok_notifications** are specified, their **notification_list** values must be the same. A maximum of 20 recipients are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-8 ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag name. **Constraints** N/A **Range** Max. 128 Unicode characters **Default Value** N/A
value	Yes	String	**Definition** Tag value. **Constraints** N/A **Range** Max. 255 Unicode characters **Default Value** N/A

Response Parameters

Status code: 201

Table 6-9 Response body parameters

Parameter	Type	Description
alarm_id	String	**Definition** Alarm rule ID. **Range** The value starts with **al** and is followed by 22 characters that may include letters, digits, or a combination of both.

Status code: 400

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-10 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-11 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Creating an alarm rule whose **name** is **alarm-lxy-rg-RDS**, **type** is **RESOURCE_GROUP**, ** suppress_duration** is **86400**, and **level** is **2**.

```
{
  "name" : "alarm-lxy-rg-RDS",
  "description" : "",
  "namespace" : "SYS.RDS",
  "type" : "RESOURCE_GROUP",
  "resources" : [ [ {
    "name" : "rds_cluster_id"
  } ] ],
  "policies" : [ {
    "metric_name" : "rds001_cpu_util",
    "period" : 1,
    "filter" : "average",
    "comparison_operator" : ">=",
    "value" : 0,
    "unit" : "%",
    "count" : 1,
    "suppress_duration" : 86400,
    "level" : 2
  } ],
  "enabled" : true,
  "notification_enabled" : false,
  "resource_group_id" : "rg1623429506587NbRweoa3J",
  "enterprise_project_id" : "a9d919b7-0456-4bb8-b470-6a23b64f4f7e",
  "alarm_template_id" : "at1628592157541dB1klWgY6"
}
```

Example Responses

Status code: 201

Alarm rule created.

```
{
  "alarm_id" : "alCzk8o9dtSQHtiDgb44Eepw"
}
```

Status Codes

Status Code	Description
201	Alarm rule created.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.1.2 Batch Deleting Alarm Rules

Function

This API (V2) is used to batch delete alarm rules.

URI

POST /v2/{project_id}/alarms/batch-delete

Table 6-12 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-13 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-14 Request body parameters

Parameter	Mandatory	Type	Description
alarm_ids	Yes	Array of strings	**Definition** IDs of the alarm rules to be deleted in batches. **Constraints** At least one and a maximum of 10 alarm rule IDs can be configured.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 6-15 Response body parameters

Parameter	Type	Description
alarm_ids	Array of strings	**Definition** IDs of the alarm rules that are deleted.

Status code: 400

Table 6-16 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-17 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Deleting alarm rules in batches.

```
{
  "alarm_ids" : [ "al12345678901234567890" ]
}
```

Example Responses

Status code: 200

Alarm rule deleted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
{
  "alarm_ids" : [ "alCzk8o9dtSQHtiDgb44Eepw" ]
}
```

Status Codes

Status Code	Description
200	Alarm rule deleted.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.1.3 Enabling or Disabling Alarm Rules in Batches

Function

This API is used to enable or disable alarm rules in batches.

URI

POST /v2/{project_id}/alarms/action

Table 6-18 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-19 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-20 Request body parameters

Parameter	Mandatory	Type	Description
alarm_ids	Yes	Array of strings	**Definition** IDs of alarm rules to be enabled or disabled in batches. **Constraints** At least one and a maximum of 100 alarm rule IDs can be configured.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_enabled	Yes	Boolean	**Definition** Whether to enable the alarm rule. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true

Response Parameters

Status code: 200

Table 6-21 Response body parameters

Parameter	Type	Description
alarm_ids	Array of strings	**Definition** IDs of alarm rules that were enabled or disabled.

Status code: 400

Table 6-22 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-23 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Enabling or disabling alarm rules in batches.

```
{
  "alarm_ids" : [ "al12345678901234567890" ],
  "alarm_enabled" : true
}
```

Example Responses

Status code: 200

Alarm rules enabled or disabled.

```
{
  "alarm_ids" : [ "alCzk8o9dtSQHtiDgb44Eepw" ]
}
```

Status Codes

Status Code	Description
200	Alarm rules enabled or disabled.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.1.4 Querying Alarm Rules (Recommended)

Function

This API is used to query the alarm rule list.

URI

GET /v2/{project_id}/alarms

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-24 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Table 6-25 Query Parameters

Parameter	Mandatory	Type	Description
alarm_id	No	String	**Definition** Alarm rule ID. **Constraints** N/A **Range** The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
name	No	String	**Definition** Alarm name. **Constraints** N/A **Range** The value allows 1 to 128 characters and can only contain digits, letters, underscores (_), and hyphens (-). **Default Value** N/A
namespace	No	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value can contain 0 to 32 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
resource_id	No	String	**Definition** ID of a resource in an alarm rule. **Constraints** N/A **Range** If the resource has multiple dimensions, the resource IDs are sorted in ascending alphabetical order and separated by commas (,). The value can contain 0 to 700 characters. **Default Value** N/A
enterprise_project_id	No	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value allows 36 characters. It can only contain lowercase letters, digits, hyphens (-), and underscores (_). You can customize an enterprise project ID. The value can also be **0** (default enterprise project ID) or **all_granted_eps** (all enterprise project IDs). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
product_name	No	String	**Definition** Product name. It needs to be specified when alarm rules with multiple dimensions are used. Generally, the value format is *Service namespace,First-level dimension of the service*, for example, **SYS.ECS,instance_id**. **Constraints** N/A **Range** 0 to 128 characters **Default Value** N/A
resource_level	No	String	**Definition** If the value of **resource_level** is **product**, cloud product alarm rules with multiple dimensions are used. If the value of **resource_level** is **dimension** or not specified, the original rule type is used. **Constraints** N/A **Range** The value can be: • **product**: cloud product • **dimension**: specific dimension **Default Value** N/A
offset	No	Integer	**Definition** Pagination offset. **Constraints** N/A **Range** [0,10000] **Default Value** 0

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition** Number of records displayed on each page. **Constraints** N/A **Range** [1,100] **Default Value** 10

Request Parameters

Table 6-26 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 6-27 Response body parameters

Parameter	Type	Description
alarms	Array of **alarms** objects	**Definition**: Alarm rule list.
count	Integer	**Definition** Total number of alarm rules. **Range** [0,10000]

Table 6-28 alarms

Parameter	Type	Description
alarm_id	String	**Definition** Alarm rule ID. **Range** The value starts with **al** and is followed by 22 characters that may include letters, digits, or a combination of both.
name	String	**Definition** Alarm name. **Range** The value allows 1 to 128 characters and can contain digits, letters, underscores (_), and hyphens (-).
description	String	**Definition** Alarm description. **Range** [0,256]

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value can contain 0 to 32 characters.
policies	Array of **Policy** objects	**Definition**: Alarm policies.
resources	Array of **ResourcesInListResp** objects	**Definition**: Resource list. Associated resources can be obtained by calling the API for querying resources in an alarm rule.
type	String	**Definition** Alarm rule type. **Range** The value can be: • **ALL_INSTANCE**: alarms for all resources • **RESOURCE_GROUP**: alarms for resource groups • **MULTI_INSTANCE**: alarms for specified resources • **EVENT.SYS**: system event alarms • **EVENT.CUSTOM**: custom event alarms • **DNSHealthCheck**: health check alarms
enabled	Boolean	**Definition** Whether to enable the alarm rule. **Range** A boolean value, which can be: • **true**: enable • **false**: disable

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
notification_enabled	Boolean	**Definition** Whether to enable alarm notifications. **Range** A boolean value, which can be: • **true**: enable • **false**: disable
alarm_notifications	Array of **NotificationResp** objects	**Definition**: Notification group or topic subscription for alarm notifications.
ok_notifications	Array of **NotificationResp** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared.
notification_begin_time	String	**Definition** Time when alarm notifications were enabled. **Range** The value allows 1 to 64 characters and can only contain digits and colons (:).
notification_end_time	String	**Definition** Time when alarm notifications were disabled. **Range** The value allows 1 to 64 characters and can only contain digits and colons (:).
effective_timezone	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Range** 1 to 16 characters
enterprise_project_id	String	**Definition** Enterprise project ID. **Range** The value can only contain lowercase letters, digits, and hyphens (-).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_template_id	String	**Definition** ID of an alarm template associated with an alarm rule. If this parameter is specified, the policy associated with the alarm rule changes accordingly with the alarm template policy. **Range** The value starts with **at** and allows 2 to 64 characters. It can only contain letters and digits.
product_name	String	**Definition** Product name. It needs to be specified when product alarm rules with multiple dimensions are used. Generally, the value format is *Service namespace,First-level dimension of the service*, for example, **SYS.ECS,instance_id**. **Range** 0 to 128 characters
resource_level	String	**Definition** Product alarm rules with multiple dimensions need to be specified as product-level rules. If the value of **resource_level** is **product**, it refers to the cloud product level. If the value of **resource_level** is **dimension** or not specified, it refers to the sub-dimension level. **Range** The value can be: ● **product**: cloud product ● **dimension**: specific dimension

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-29 Policy

Parameter	Type	Description
metric_name	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
period	Integer	**Definition** Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Constraints** N/A **Range** The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A
filter	String	**Definition** Aggregation method. **Constraints** N/A **Range** **average**, **variance**, **min**, **max**, or **sum** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
comparison_operator	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A
value	Number	**Definition** Alarm threshold. For specific thresholds, see the value range of each metric in the appendix. **Constraints** If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range** **-1.7976931348623157e+108** to **1.7976931348623157e+108** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
hierarchical_value	**HierarchicalValue** object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	String	**Definition** Data unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A
count	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
suppress_duration	Integer	**Definition** Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Constraints** N/A **Range** The value can be: • **0**: An alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. • **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
level	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be **1** (critical), ** 2** (major), **3** (minor), or **4** (informational). **Default Value** 2
namespace	String	**Definition** **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 0 to 32 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
dimension_name	String	**Definition** Metric dimension name. For details, see **Service Dimension Names**. **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. **Constraints** N/A **Range** A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios and **instance_id,disk** for multi-dimension scenarios **Default Value** N/A
enabled	Boolean	**Definition** Whether the alarm policy is enabled. The value can be **true** (enabled) or **false** (disabled). **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-30 HierarchicalValue

Parameter	Type	Description
critical	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
major	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
minor	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

Table 6-31 ResourcesInListResp

Parameter	Type	Description
resource_group_id	String	**Definition** Resource group ID. This parameter is available when the monitoring scope is **Resource groups**. **Range** The value starts with **rg** and is followed by 22 characters of letters, digits, or a combination of both.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
resource_group_name	String	**Definition** Resource group name. This parameter is available when the monitoring scope is **Resource groups**. **Range** 1 to 128 characters
dimensions	Array of **MetricDimensionResp** objects	**Definition** Dimension information.

Table 6-32 MetricDimensionResp

Parameter	Type	Description
name	String	**Definition** Metric dimension name. **Range** The value must start with a letter and can contain 1 to 32 characters.
value	String	**Definition** Metric dimension value. **Range** [0,256]

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-33 NotificationResp

Parameter	Type	Description
type	String	**Definition** Notification type. **Range** The value can be: • **notification**: SMN notifications • **contact**: account contacts • **contactGroup**: notification groups • **autoscaling**: AS notifications. It is used only in AS and is not recommended. • **groupwatch**: deprecated • **ecsRecovery**: deprecated • **iecAction**: deprecated
notification_list	Array of strings	**Definition** Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics".

Status code: 400

Table 6-34 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-35 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
request_id	String	Request ID.

Example Requests

Query alarm rules.

```
/v2/{project_id}/alarms?offset=0&limit=10
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "alarms" : [ {
    "alarm_id" : "al16558829757444BVVxr999",
    "name" : "alarm01",
    "description" : "",
    "namespace" : "SYS.ECS",
    "policies" : [ {
      "metric_name" : "disk_device_read_bytes_rate",
      "period" : 1,
      "filter" : "average",
      "comparison_operator" : ">",
      "value" : 75,
      "unit" : "byte/s",
      "count" : 3,
      "suppress_duration" : 10800,
      "level" : 2
    } ],
    "resources" : [ {
      "dimensions" : [ {
        "name" : "disk_name"
      } ]
    } ],
    "type" : "ALL_INSTANCE",
    "enabled" : true,
    "notification_enabled" : true,
    "alarm_notifications" : [ {
      "type" : "notification",
      "notification_list" : [ "urn:smn:xxx:xxx70e7359:topic_xxx" ]
    } ],
    "ok_notifications" : [ {
      "type" : "notification",
      "notification_list" : [ "urn:smn:xxx:xxx70e7359:topic_xxx" ]
    } ],
    "notification_begin_time" : "00:00",
    "notification_end_time" : "23:59",
    "enterprise_project_id" : "0"
  } ],
  "count" : 1
}
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.2 Alarm Resources

6.2.1 Batch Adding Resources to an Alarm Rule

Function

This API is used to batch add resources to an alarm rule. This API does not support alarm rules whose **AlarmType** is **RESOURCE_GROUP**. To modify resources in such alarm rules, use the resource group management APIs.

URI

POST /v2/{project_id}/alarms/{alarm_id}/resources/batch-create

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-36 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
alarm_id	Yes	String	Alarm rule ID.

Request Parameters

Table 6-37 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-38 Request body parameters

Parameter	Mandatory	Type	Description
resources	Yes	Array<Array< **Dimension**>>	Resource information.

Table 6-39 Dimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of the resource. For example, the dimension of an ECS is **instance_id**. For details about the metric dimension name of each service resource, see **Service Dimension Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
value	No	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Response Parameters

Status code: 200

Resources added.

Status code: 400

Table 6-40 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-41 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-42 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Batch adding resources to an alarm rule.

```
{
  "resources" : [ [ {
    "name" : "rds_cluster_id",
    "value" : "rds000000000001"
  } ] ]
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Resources added.
400	Parameter verification failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.2.2 Batch Deleting Resources from an Alarm Rule

Function

This API is used to batch delete resources from an alarm rule. This API does not support alarm rules whose **AlarmType** is **RESOURCE_GROUP**. To modify resources in such alarm rules, use the resource group management APIs.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

URI

POST /v2/{project_id}/alarms/{alarm_id}/resources/batch-delete

Table 6-43 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
alarm_id	Yes	String	Alarm rule ID.

Request Parameters

Table 6-44 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-45 Request body parameters

Parameter	Mandatory	Type	Description
resources	Yes	Array<Array< **Dimension**>>	Resource information.

Table 6-46 Dimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of the resource. For example, the dimension of an ECS is **instance_id**. For details about the metric dimension name of each service resource, see **Service Dimension Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
value	No	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Response Parameters

Status code: 200

Resources deleted.

Status code: 400

Table 6-47 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-48 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-49 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Deleting resources monitored by an alarm rule.

```
{
  "resources" : [ [ {
    "name" : "rds_cluster_id",
    "value" : "rds000000000001"
  } ] ]
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Resources deleted.
400	Parameter verification failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.2.3 Querying Resources in an Alarm Rule

Function

This API is used to query resources in an alarm rule by alarm rule ID.

URI

GET /v2/{project_id}/alarms/{alarm_id}/resources

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-50 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
alarm_id	Yes	String	**Definition** Alarm rule ID. **Constraints** N/A **Range** The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value** N/A

Table 6-51 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Description** Pagination offset. **Constraints** N/A **Range** **0** to **10000** **Default Value** 0

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
limit	No	Integer	**Description** Number of records displayed on each page. **Constraints** N/A **Range** **1** to **100** **Default Value** 10

Request Parameters

Table 6-52 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 6-53 Response body parameters

Parameter	Type	Description
resources	Array<Array<**DimensionResp**>>	**Definition** Resource information.
count	Integer	**Definition** Total number of resources. **Range** [0,2147483647]

Table 6-54 DimensionResp

Parameter	Type	Description
name	String	**Definition** Dimension of the resource. For example, the dimension of an ECS is **instance_id**. For details about the metric dimension name of each service resource, see **Service Dimension Names**. **Range** The value must start with a letter and can only contain letters, digits, underscores (_), and hyphens (-).
value	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Range** 1 to 256 characters

Status code: 400

Table 6-55 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-56 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Querying resources monitored by an alarm rule whose **alarm_id** is **alCzk8o9dtSQHtiDgb44Eepw** and **limit** is **10**.

```
/v2/{project_id}/alarms/alCzk8o9dtSQHtiDgb44Eepw/resources?offset=0&limit=10
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "resources" : [ [ {
    "name" : "disk_name"
  } ] ],
  "count" : 10
}
```

Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter verification failed.
500	Internal system error.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Error Codes

See **Error Codes**.

6.3 Alarm Policies

6.3.1 Modifying All Fields in an Alarm Policy

Function

This API is used to modify all fields in an alarm rule.

URI

PUT /v2/{project_id}/alarms/{alarm_id}/policies

Table 6-57 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
alarm_id	Yes	String	**Definition** Alarm rule ID. **Constraints** N/A **Range** The value starts with **al** and can only contain letters and digits. The value contains a total of 24 characters. **Default Value** N/A

Request Parameters

Table 6-58 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-59 Request body parameters

Parameter	Mandatory	Type	Description
policies	Yes	Array of **UpdatePolicyReq** objects	**Definition** Policy information. **Constraints** A maximum of 50 policies can be configured.

Table 6-60 UpdatePolicyReq

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A
extra_info	No	**MetricExtraInfo** object	**Definition** Additional information about the policy. **Constraints** If the policy does not contain additional information, **extra_info** does not need to be transferred.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
period	Yes	Integer	**Definition** Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Constraints** N/A **Range** The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
filter	Yes	String	**Definition** Aggregation method. **Constraints** N/A **Range** **average**, **variance**, **min**, **max**, or **sum** **Default Value** N/A
comparison_operator	Yes	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
value	No	Number	**Definition** Alarm threshold. For specific thresholds, see the value range of each metric in the appendix. **Constraints** If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range** **-1.7976931348623157e+108** to **1.7976931348623157e+108** **Default Value** N/A
hierarchical_value	No	**HierarchicalValue** object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	No	String	**Definition** Data unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
type	No	String	**Definition** Alarm policy type. This API has been deprecated. **Constraints** N/A **Range** The value can only be **auto**. **Default Value** N/A
count	Yes	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
suppress_duration	No	Integer	**Definition** Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Constraints** N/A **Range** The value can be: • **0**: An alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
			• **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met. **Default Value** N/A
level	No	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be **1** (critical), ** 2** (major), **3** (minor), or **4** (informational). **Default Value** 2
namespace	No	String	**Definition** Service namespace. For details about the namespace of each service, see **Service Namespaces**. **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value can contain 0 to 32 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dimension_name	No	String	**Definition** Metric dimension name. For details, see **Service Dimension Names**. **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. **Constraints** N/A **Range** A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios and **instance_id,disk** for multi-dimension scenarios **Default Value** N/A

Table 6-61 MetricExtraInfo

Parameter	Mandatory	Type	Description
origin_metric_name	Yes	String	**Definition** Original metric name. **Constraints** N/A **Range** 0 to 4,096 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_prefix	No	String	**Definition** Metric name prefix. **Constraints** N/A **Range** 0 to 4,096 characters **Default Value** N/A
custom_proc_name	No	String	**Definition** Name of a process. **Constraints** N/A **Range** [0,250] **Default Value** N/A
metric_type	No	String	**Definition** Metric type. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

Table 6-62 HierarchicalValue

Parameter	Mandatory	Type	Description
critical	No	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
major	No	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
minor	No	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	No	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

Response Parameters

Status code: 200

Table 6-63 Response body parameters

Parameter	Type	Description
policies	Array of **UpdatePolicyResp** objects	**Definition** Policy information.

Table 6-64 UpdatePolicyResp

Parameter	Type	Description
metric_name	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency.
extra_info	**MetricExtraInfoResp** object	**Definition** Additional information about the policy.
period	Integer	**Definition** Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Range** The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
filter	String	**Definition** Aggregation method. **Range** **average**, **variance**, **min**, **max**, or **sum**
comparison_operator	String	**Definition** Threshold symbol. **Range** The value can be >, <, >=, <=, =, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period.
value	Number	**Definition** Alarm threshold. For specific thresholds, see the value range of each metric in the appendix. **Range** **0** to **1.7976931348623157e+108**
hierarchical_value	**HierarchicalValueResp** object	**Definition**: Multi-level alarm threshold.
unit	String	**Definition** Data unit. **Range** 0 to 32 characters
type	String	**Definition** Alarm policy type. This API has been deprecated. **Range** The value can only be **auto**.
count	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
suppress_duration	Integer	**Definition** Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Range** The value can be: • **0**: An alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. • **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
level	Integer	**Definition** Alarm severity. **Range** The value can be **1** (critical), ** 2** (major), **3** (minor), or **4** (informational).
namespace	String	**Definition** Service namespace. For details about the namespace of each service, see **Service Namespaces**. **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value can contain 0 to 32 characters.
dimension_name	String	**Definition** Metric dimension name. For details, see **Service Dimension Names**. **Range** A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios.

Table 6-65 MetricExtraInfoResp

Parameter	Type	Description
origin_metric_name	String	**Definition** Original metric name. **Range** 0 to 4,096 characters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_prefix	String	**Definition** Metric name prefix. **Range** 0 to 4,096 characters
custom_proc_name	String	**Definition** Name of a process. **Range** [0,250]
metric_type	String	**Definition** Metric type. **Range** 0 to 32 characters

Table 6-66 HierarchicalValueResp

Parameter	Type	Description
critical	Double	**Definition** Threshold for critical alarms. **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108]
major	Double	**Definition** Threshold for major alarms. **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108]
minor	Double	**Definition** Threshold for minor alarms. **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108]
info	Double	**Definition** Threshold for informational alarms. **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108]

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 400

Table 6-67 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-68 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Modify an alarm policy whose **metric name** is **disk_device_read_bytes_rate**.

```
{
  "policies" : [ {
    "metric_name" : "disk_device_read_bytes_rate",
    "period" : 1,
    "filter" : "average",
    "comparison_operator" : ">",
    "value" : 75,
    "unit" : "byte/s",
    "count" : 3,
    "suppress_duration" : 10800,
    "level" : 2
  } ]
}
```

Example Responses

Status code: 200

Modification succeeded.

```
{
  "policies" : [ {
    "metric_name" : "disk_device_read_bytes_rate",
    "period" : 1,
    "filter" : "average",
    "comparison_operator" : ">",
    "value" : 75,
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
    "unit" : "byte/s",
    "count" : 3,
    "type" : "",
    "suppress_duration" : 10800,
    "level" : 2
  } ]
}
```

Status Codes

Status Code	Description
200	Modification succeeded.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.3.2 Querying Alarm Policies

Function

This API is used to query alarm policies by alarm rule ID.

URI

GET /v2/{project_id}/alarms/{alarm_id}/policies

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-69 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
alarm_id	Yes	String	**Definition** Alarm rule ID. **Constraints** N/A **Range** The value starts with **al** and is followed by 22 characters that may include letters, digits, or a combination of both. The value can contain a total of 24 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-70 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition** Pagination offset. **Constraints** N/A **Range** **0** to **10000** **Default Value** 0
limit	No	Integer	**Definition** Number of records displayed on each page. **Constraints** N/A **Range** **1** to **100** **Default Value** 10

Request Parameters

Table 6-71 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-72 Response body parameters

Parameter	Type	Description
policies	Array of **ListPolicyResp** objects	**Definition** List of alarm policies.
count	Integer	**Definition** Total number of policies in an alarm rule. **Range** 0-100

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-73 ListPolicyResp

Parameter	Type	Description
metric_name	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency.
extra_info	**MetricExtraInfoResp** object	**Definition** Additional information about the alarm policy.
period	Integer	**Definition** Interval (seconds) for checking whether the alarm rule conditions are met. **Range** The value can be: • **0**: default value. This value can be used for event alarms. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day.
filter	String	**Definition** Aggregation method. **Range** **average**, **variance**, **min**, **max**, or **sum**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
comparison_operator	String	**Definition** Threshold symbol. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period.
value	Number	**Definition** Alarm threshold. For specific thresholds, see the value range of each metric in the appendix. **Range** **0** to **1.7976931348623157e+108**
hierarchical_value	**HierarchicalValueResp** object	**Definition**: Multi-level alarm threshold.
unit	String	**Definition** Data unit. **Range** 0 to 32 characters
type	String	**Definition** Alarm policy type. This API has been deprecated. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A
count	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
suppress_duration	Integer	**Definition** Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Range** The value can be: • **0**: An event alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. • **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
level	Integer	**Definition** Alarm severity. **Range** The value can be **1** (critical), ** 2** (major), **3** (minor), or **4** (informational).
namespace	String	**Definition** Service namespace. For details about the namespace of each service, see **Service Namespaces**. **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value can contain 0 to 32 characters.
dimension_name	String	**Definition** Metric dimension name. For details, see **Service Dimension Names**. **Range** The value must start with a letter. Each dimension allows a maximum of 32 characters and can only contain digits, letters, underscores (_), and hyphens (-). Multiple dimensions are separated by commas (,). A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios.

Table 6-74 MetricExtraInfoResp

Parameter	Type	Description
origin_metric_name	String	**Definition** Original metric name. **Range** 0 to 4,096 characters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_prefix	String	**Definition** Metric name prefix. **Range** 0 to 4,096 characters
custom_proc_name	String	**Definition** Name of a process. **Range** [0,250]
metric_type	String	**Definition** Metric type. **Range** 0 to 32 characters

Table 6-75 HierarchicalValueResp

Parameter	Type	Description
critical	Double	**Definition** Threshold for critical alarms. **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108]
major	Double	**Definition** Threshold for major alarms. **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108]
minor	Double	**Definition** Threshold for minor alarms. **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108]
info	Double	**Definition** Threshold for informational alarms. **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108]

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 400

Table 6-76 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-77 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-78 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Query an alarm policy whose **alarm_id** is **alCzk8o9dtSQHtiDgb44Eepw** and **limit** is **10**.

```
/v2/{project_id}/alarms/alCzk8o9dtSQHtiDgb44Eepw/policies?offset=0&limit=10
```

Example Responses

Status code: 200

Query succeeded.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
{
  "policies" : [ {
    "namespace" : "AGT.ECS",
    "metric_name" : "disk_device_read_bytes_rate",
    "extra_info" : { },
    "period" : 1,
    "filter" : "average",
    "comparison_operator" : ">",
    "value" : 75,
    "hierarchical_value" : {
      "critical" : 1
    },
    "unit" : "byte/s",
    "count" : 3,
    "type" : "",
    "suppress_duration" : 10800,
    "level" : 2
  } ],
  "count" : 10
}
```


Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter verification failed.
404	Alarm rule not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.4 Alert Notifications

6.4.1 Modifying Alarm Notification Information in an Alarm Rule

Function

This API is used to modify alarm notification information in an alarm rule.

URI

PUT /v2/{project_id}/alarms/{alarm_id}/notifications

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-79 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
alarm_id	Yes	String	**Definition** Alarm rule ID. **Constraints** N/A **Range** The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-80 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-81 Request body parameters

Parameter	Mandatory	Type	Description
notification_enabled	Yes	Boolean	**Definition** Whether to enable alarm notifications. **Constraints** If this parameter is set to **true**, other fields are mandatory. If it is set to **false**, other fields are optional. **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** N/A
alarm_notifications	No	Array of **Notification** objects	**Definition**: Notification group or topic subscription for alarm notifications. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.
ok_notifications	No	Array of **Notification** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notification_begin_time	No	String	**Definition** Time when alarm notifications were enabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A
notification_end_time	No	String	**Definition** Time when alarm notifications were disabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A
effective_timezone	No	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-82 Notification

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Notification type. **Constraints** N/A **Range** The value can be: • **notification**: SMN notifications • **contact**: account contacts • **contactGroup**: notification groups • autoscaling: AS notifications. This value is used only for AS. • **groupwatch**: deprecated • **ecsRecovery**: deprecated • **iecAction**: deprecated **Default Value** N/A
notification_list	Yes	Array of strings	**Definition** Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics". **Constraints** If **type** is set to **notification**, the value of **notification_list** cannot be left blank. If **type** is set to **autoscaling**, the value of **notification_list** must be left blank. If **notification_enabled** is set to **true**, you must specify either **alarm_notifications** or **ok_notifications**. If both **alarm_notifications** and **ok_notifications** are specified, their **notification_list** values must be the same. A maximum of 20 recipients are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 6-83 Response body parameters

Parameter	Type	Description
notification_enabled	Boolean	**Definition** Whether to enable alarm notifications. **Range** A boolean value, which can be: • **true**: enable • **false**: disable
alarm_notifications	Array of **NotificationResp** objects	**Definition**: Notification group or topic subscription for alarm notifications.
ok_notifications	Array of **NotificationResp** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared.
notification_begin_time	String	**Definition** Time when alarm notifications were enabled. **Range** The value allows 1 to 64 characters and can only contain digits and colons (:).
notification_end_time	String	**Definition** Time when alarm notifications were disabled. **Range** The value allows 1 to 64 characters and can only contain digits and colons (:).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-84 NotificationResp

Parameter	Type	Description
type	String	**Definition** Notification type. **Range** The value can be: • **notification**: SMN notifications • **contact**: account contacts • **contactGroup**: notification groups • **autoscaling**: AS notifications. It is used only in AS and is not recommended. • **groupwatch**: deprecated • **ecsRecovery**: deprecated • **iecAction**: deprecated
notification_list	Array of strings	**Definition** Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics".

Status code: 400

Table 6-85 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-86 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
request_id	String	Request ID.

Example Requests

Modifying alarm notification information in an alarm rule.

```
{
  "notification_enabled" : true,
  "alarm_notifications" : [ {
    "type" : "notification",
    "notification_list" : [ "urn:smn:cn-north-7:65c438cab60xxxxxxx:CES_notification_group_MGj4AJ03X" ]
  } ],
  "ok_notifications" : [ {
    "type" : "notification",
    "notification_list" : [ "urn:smn:cn-north-7:65c438cab60xxxxxxx:CES_notification_group_MGj4AJ03X" ]
  } ],
  "notification_begin_time" : "00:00",
  "notification_end_time" : "23:59"
}
```

Example Responses

Status code: 200

Alarm notification information modified.

```
{
  "notification_enabled" : true,
  "alarm_notifications" : [ {
    "type" : "",
    "notification_list" : [ ]
  } ],
  "ok_notifications" : [ {
    "type" : "",
    "notification_list" : [ ]
  } ],
  "notification_begin_time" : "00:00",
  "notification_end_time" : "23:59"
}
```

Status Codes

Status Code	Description
200	Alarm notification information modified.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

6.5 Alarm Records

6.5.1 This API is used to query alarm records.

Function

This API is used to query alarm records.

URI

GET /v2/{project_id}/alarm-histories

Table 6-87 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Table 6-88 Query Parameters

Parameter	Mandatory	Type	Description
alarm_id	No	Array of strings	**Definition**: List of alarm IDs. Alarm ID. It starts with **al** and is followed by 22 characters, including letters or digits. **Constraints**: The list can contain a maximum of 50 alarm IDs.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
record_id	No	String	**Definition**: Alarm record ID. **Constraints**: None **Value range**: The value can contain 24 characters. It starts with **ah** and is followed by 22 characters, including letters or digits. **Default value**: None
name	No	String	**Definition**: Alarm rule name. **Constraints**: None **Value range**: The value can contain a maximum of 128 characters. **Default value**: None
status	No	Array of strings	**Definition** Alarm rule statuses. **Constraints** The list can contain a maximum of three elements.
level	No	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be: • **1**: critical • **2**: major • **3**: minor • **4**: warning **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
namespace	No	String	**Definition**: Namespace of a service. For details about the namespace of each service, see **Service namespace**. **Constraints**: None **Value range**: The value is in the **service.item** format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default value**: None
resource_id	No	String	**Definition**: Alarm resource ID. **Constraints**: None **Value range**: In the context of multiple dimensions, resource IDs are separated by commas (,) in ascending alphabetical order. The value can contain a maximum of 2,048 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
from	No	String	**Definition**: Start time of the period during which alarm records are updated, for example, **2022-02-10T10:05:46+08:00**. **Constraints**: None **Value range**: The value can contain a maximum of 64 characters. **Default value**: None
to	No	String	**Definition**: End time of the period during which alarm records are updated, for example, **2022-02-10T10:05:47+08:00**. **Constraints**: None **Value range**: The value can contain a maximum of 64 characters. **Default value**: None
alarm_type	No	String	**Definition** Alarm type. **Constraints** N/A **Range** The value can be: • **event**: event alarms • **metric**: metric alarms **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
create_time_from	No	String	**Definition**: Start time for generating alarm records, for example, **2022-02-10T10:05:46+08:00**. **Constraints**: None **Value range**: The value can contain a maximum of 64 characters. **Default value**: None
create_time_to	No	String	**Definition**: End time of the period during which alarm records are created, for example, **2022-02-10T10:05:47+08:00**. **Constraints**: None **Value range**: The value can contain a maximum of 64 characters. **Default value**: None
offset	No	Integer	**Definition**: Pagination offset. **Constraints**: None **Value range**: The value is an integer from **0** to **1000000000**. **Default value**: 0

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Pagination offset. **Constraints**: None **Value range**: The value is an integer from **1** to **100**. **Default value**: 100
order_by	No	String	**Definition** Keyword for sorting alarms. **Constraints** N/A **Range** The value can be: • **first_alarm_time**: time when an alarm is generated • **update_time**: time when an alarm is updated • **alarm_level**: alarm severity • **record_id**: alarm record ID **Default Value** update_time

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-89 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-90 Response body parameters

Parameter	Type	Description
alarm_histories	Array of **AlarmHistoryItemV2** objects	**Definition**: Alarm records.
count	Integer	**Definition**: Total number of alarm records. **Value range**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-91 AlarmHistoryItemV2

Parameter	Type	Description
record_id	String	**Definition**: Alarm record ID. **Value range**: The value can contain a maximum of 24 characters.
alarm_id	String	**Definition**: Alarm rule ID, for example, **al1603131199286dzxpqK3Ez**. **Value range**: The value can contain a maximum of 24 characters.
name	String	**Definition**: Alarm rule name, for example, **alarm-test01**. **Value range**: The value can contain 1 to 128 characters.
status	String	**Definition**: Alarm record status. **Value range**: The value can be **ok**, **alarm**, **invalid**, or **ok_manual**. **ok** indicates normal, **alarm** indicates an ongoing alarm, **invalid** indicates an invalid alarm, and **ok_manual** indicates manual recovery.
level	Integer	**Definition**: Alarm severity. **Value range**: The value can be **1** (critical), **2** (major), **3** (minor), and **4** (informational).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
type	String	**Definition**: Alarm rule type. **Value range**: Enumerated value. **ALL_INSTANCE** indicates alarm rules for metrics of all resources. **RESOURCE_GROUP** indicates alarm rules for metrics of resources in a resource group. **MULTI_INSTANCE** indicates alarm rules for metrics of specified resources. **EVENT.SYS** indicates alarm rules for system events. **EVENT.CUSTOM** indicates alarm rules for custom events. **DNSHealthCheck** indicates alarm rules for health checks.
action_enabled	Boolean	**Definition**: Whether to send notifications. **Value range**: **true**: Notifications are sent. **false**: Notifications are not sent.
begin_time	String	**Definition**: UTC time when the alarm was generated. **Value range**: None
end_time	String	**Definition**: Alarm end time (UTC time). **Value range**: None
first_alarm_time	String	**Definition**: UTC time when the alarm was generated for the first time. **Value range**: None
last_alarm_time	String	**Definition**: UTC time when the alarm was generated for the last time. **Value range**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_recovery_time	String	**Definition**: UTC time when the alarm was cleared. **Value range**: None
metric	**metric** object	**Definition** Metric information.
condition	**condition** object	**Definition**: Alarm triggering condition.
additional_info	**AdditionalInfo** object	**Definition**: Additional field of an alarm record. This is only intended for alarm records generated in event monitoring.
alarm_actions	Array of **alarm_actions** objects	**Definition**: Actions triggered by the alarm. The structure is as follows: { "type": "notification", "notification_list": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }. The value of **type** can be: **notification**: Notifications will be sent. **autoscaling**: A scaling action will be triggered. **notification_list**: recipients to be notified of the alarm status changes.
ok_actions	Array of **ok_actions** objects	**Definition**: Action to be triggered after an alarm is cleared. The structure is as follows: { "type": "notification", "notification_list": ["urn:smn:southchina:68438a86d98e427e907e0097b7e35d47:sd"] }. The value of **type** can be **notification** or **notification_list** (recipients to be notified of the alarm status changes).
data_points	Array of **DataPointInfo** objects	Time when the resource monitoring data is reported and the monitoring data in the alarm record.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-92 metric

Parameter	Type	Description
namespace	String	**Definition**: Namespace of a service. For details about the namespace of each service, see **Service namespace**. **Value range**: The value can contain 3 to 32 characters.
metric_name	String	**Definition**: Metric name of a resource. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. For details about the metrics of each service, see **Service metric name**. **Value range**: The value can contain 1 to 64 characters.
dimensions	Array of **dimensions** objects	**Definition**: Metric dimension. **Value range**: None

Table 6-93 dimensions

Parameter	Type	Description
name	String	**Definition**: Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service metric dimension**. **Value range**: The value can contain 1 to 32 characters.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
value	String	**Definition**: Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Value range**: The value can contain 1 to 256 characters.

Table 6-94 condition

Parameter	Type	Description
period	Integer	**Definition**: Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Value range**: **0**: default value. For example, this value can be used for event alarms. **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. **300**: The metric data is collected and calculated every 5 minutes. **1200**: The metric data is collected and calculated every 20 minutes. **3600**: The metric data is collected and calculated every 60 minutes. **14400**: The metric data is collected and calculated every 4 hours. **86400**: The metric data is collected and calculated every day.
filter	String	**Definition** Aggregation method. **Range** The value can be **average**, **variance**, **min**, **max**, or **sum**. It allows 1 to 15 characters.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
comparison_operator	String	**Definition**: Threshold symbol. **Value range**: Enumerated value. The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. The value can contain 1 to 10 characters.
value	Double	**Definition**: Alarm threshold. **Value range**: For detailed thresholds, see the value range of each metric in the appendix. For example, you can set ECS **cpu_util** to **80** in **Services Interconnected with Cloud Eye**. The value ranges from **0** to **1.7976931348623157e+108**.
unit	String	**Definition**: Data unit. **Value range**: The value can contain a maximum of 32 characters.
count	Integer	**Definition**: Number of consecutive alarm triggers. **Value range**: The value can contain 1 to 180 characters.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
suppress_duration	Integer	**Definition** Alarm suppression duration (alarm interval), in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to address the issue of frequent alarm occurrences. **Range** The value can be: • **0**: An alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. • **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-95 AdditionalInfo

Parameter	Type	Description
resource_id	String	**Definition**: Resource ID corresponding to the alarm record, for example, **22d98f6c-16d2-4c2d-b424-50e79d82838f**. **Value range**: The value can contain a maximum of 128 characters.
resource_name	String	**Definition**: Resource name corresponding to the alarm record, for example, **ECS-Test01**. **Value range**: The value can contain a maximum of 128 characters.
event_id	String	**Definition**: ID of the event in the alarm record, for example, **ev16031292300990kKN8p17J**. **Value range**: The value can contain a maximum of 24 characters.

Table 6-96 alarm_actions

Parameter	Type	Description
type	String	**Definition**: Notification type. **Value range**: Enumerated value. The value can be **notification** (SMN notifications), **contact** (account contacts), **contactGroup** (notification groups), or **autoscaling** (AS notifications). **autoscaling** is used only in AS and is not recommended. **groupwatch**, **ecsRecovery**, and **iecAction** are no longer used.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
notification_list	Array of strings	**Definition**: Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics".

Table 6-97 ok_actions

Parameter	Type	Description
type	String	**Definition**: Notification type. **Value range**: Enumerated value. The value can be **notification** (SMN notifications), **contact** (account contacts), **contactGroup** (notification groups), or **autoscaling** (AS notifications). **autoscaling** is used only in AS and is not recommended. **groupwatch**, **ecsRecovery**, and **iecAction** are no longer used.
notification_list	Array of strings	**Definition**: Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics".

Table 6-98 DataPointInfo

Parameter	Type	Description
time	String	**Definition**: UTC time when the resource monitoring data of the alarm record is reported. **Value range**: The value can contain 1 to 64 characters.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
value	Double	**Definition**: Resource monitoring data of the alarm record at the time point, for example, **7.019**. **Value range**: The value is an integer from **0** to **1.7976931348623157e+308**.

Status code: 400

Table 6-99 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-100 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Alarm records whose **alarm_name** is **alarm-test01**, and **from** and **to** are **2022-02-10T10:05:46+08:00**.

```
/v2/{project_id}/alarm-histories?
limit=10&offset=0&from=2022-02-10T10:05:46+08:00&to=2022-02-10T12:05:46+08:00&alarm_name=alarm-test01
```

Example Responses

Status code: 200

Query succeeded.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
{
  "alarm_histories" : [ {
    "alarm_id" : "al1604473987569z6n6nkpm1",
    "record_id" : "ah1655717086704DEnBrJ999",
    "name" : "TC_CES_FunctionBaseline_Alarm_008",
    "metric" : {
      "namespace" : "SYS.VPC",
      "dimensions" : [ {
        "name" : "bandwidth_id",
        "value" : "79a9cc0c-f626-4f15-bf99-a1f184107f88"
      } ],
      "metric_name" : "downstream_bandwidth"
    },
    "condition" : {
      "period" : 1,
      "filter" : "average",
      "comparison_operator" : ">=",
      "value" : 0,
      "count" : 3,
      "suppress_duration" : 3600
    },
    "level" : 2,
    "type" : "ALL_INSTANCE",
    "begin_time" : "2024-02-11T05:48:08+08:00",
    "end_time" : "2024-02-11T08:48:08+08:00",
    "last_alarm_time" : "2024-02-11T06:48:08+08:00",
    "alarm_recovery_time" : "2024-02-11T08:48:08+08:00",
    "action_enabled" : false,
    "alarm_actions" : [ ],
    "ok_actions" : [ ],
    "status" : "alarm",
    "data_points" : [ {
      "time" : "2022-06-22T16:38:02+08:00",
      "value" : 873.1507798960139
    }, {
      "time" : "2022-06-22T16:28:02+08:00",
      "value" : 883.1507798960139
    }, {
      "time" : "2022-06-22T16:18:02+08:00",
      "value" : 873.4
    } ],
    "additional_info" : {
      "resource_id" : "",
      "resource_name" : "",
      "event_id" : ""
    }
  } ],
  "count" : 103
}
```


Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

6.6 Alarm Templates

6.6.1 Creating a Custom Alarm Template

Function

This API is used to create a custom alarm template.

URI

POST /v2/{project_id}/alarm-templates

Table 6-101 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-102 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

Table 6-103 Request body parameters

Parameter	Mandatory	Type	Description
template_name	Yes	String	**Definition** Alarm template name. **Constraints** N/A **Range** The value allows 1 to 128 characters. It must start with a letter and can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
template_type	No	Integer	**Definition** Custom alarm template type. **Constraints** N/A **Range** The value can be: • **0**: metric type • **2**: event type **Default Value** 0

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
template_description	No	String	**Definition** Alarm template description. **Constraints** N/A **Range** [0,256] **Default Value** An empty string
is_overwrite	No	Boolean	**Definition** Whether to overwrite the existing alarm template with the same name. **Constraints** N/A **Range** A boolean value, which can be: • **true**: Overwrite the alarm template with the same name. • **false**: Create an alarm template instead of overwriting the alarm template with the same name. **Default Value** false
policies	Yes	Array of **Policies** objects	**Definition** Alarm policies in an alarm template. **Constraints** A maximum of 1,000 policies can be configured.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-104 Policies

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimension_name	No	String	**Definition** Resource dimension. **Constraints** The **DimensionName** field of the event alarm template is empty. **Range** The value must start with a letter. Each dimension allows a maximum of 32 characters and can only contain digits, letters, underscores (_), and hyphens (-). Multiple dimensions are separated by commas (,). A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios and **instance_id,disk** for multi-dimension scenarios. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A
extra_info	No	**MetricExtraInfo** object	**Definition** Additional information about the alarm policy. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
period	Yes	Integer	**Definition** Interval (seconds) for checking whether the alarm rule conditions are met. **Constraints** N/A **Range** The value can be: • **0**: default value. This value can be used for event alarms. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A
filter	Yes	String	**Definition** Aggregation method. **Constraints** N/A **Range** **average**, **variance**, **min**, **max**, or **sum** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
comparison_operator	Yes	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A
value	No	Number	**Definition** Alarm threshold. **Constraints** If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range** N/A **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
hierarchical_value	No	HierarchicalValue object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	No	String	**Definition** Data unit. The value can contain a maximum of 32 characters. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A
selected_unit	No	String	**Definition** The metric unit you selected. It is used for subsequent metric data display and calculation. **Constraints** N/A **Range** 0 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
count	Yes	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A
type	No	String	**Definition** Alarm policy type. This API has been deprecated. **Constraints** N/A **Range** The value can only be **auto**. **Default Value** N/A
alarm_level	No	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be: • **1**: critical • **2**: major • **3**: minor • **4**: Informational **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
suppress_duration	No	Integer	**Definition** Alarm suppression interval, in seconds. **Constraints** N/A **Range** The value can be: • **0**: An alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. • **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
			• **86400**: An alarm is generated once every day once the alarm triggering condition is met. **Default Value** N/A

Table 6-105 MetricExtraInfo

Parameter	Mandatory	Type	Description
origin_metric_name	Yes	String	**Definition** Original metric name. **Constraints** N/A **Range** 0 to 4,096 characters **Default Value** N/A
metric_prefix	No	String	**Definition** Metric name prefix. **Constraints** N/A **Range** 0 to 4,096 characters **Default Value** N/A
custom_proc_name	No	String	**Definition** Name of a process. **Constraints** N/A **Range** [0,250] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_type	No	String	**Definition** Metric type. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

Table 6-106 HierarchicalValue

Parameter	Mandatory	Type	Description
critical	No	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
major	No	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
minor	No	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	No	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

Response Parameters

Status code: 201

Table 6-107 Response body parameters

Parameter	Type	Description
template_id	String	**Definition**: Alarm template ID. **Range**: The value starts with **at** and allows 2 to 64 characters. It can contain letters and digits.
overwrite_result	**OverwriteResultResp** object	**Definition** Whether to overwrite an existing template with the same name.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-108 OverwriteResultResp

Parameter	Type	Description
success_ids	String	**Definition**: ID of the template that is overwritten. **Range**: 2 to 64 characters
failed_ids	String	**Definition**: ID of the template that is not overwritten. **Range**: 2 to 64 characters

Status code: 400

Table 6-109 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-110 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-111 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
request_id	String	Request ID.

Status code: 500

Table 6-112 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Creating a custom alarm template whose **template_name** is **my_template**, **count** is **2**, **suppress_duration** is **300**, and **alarm_level** is **2**.

```
{
  "template_name" : "my_template",
  "template_description" : "hello world",
  "policies" : [ {
    "namespace" : "SYS.ECS",
    "dimension_name" : "instance_id",
    "metric_name" : "cpu_util",
    "period" : 300,
    "filter" : "sum",
    "comparison_operator" : ">",
    "value" : 2,
    "unit" : "bit/s",
    "count" : 2,
    "alarm_level" : 2,
    "suppress_duration" : 300
  } ]
}
```

Example Responses

Status code: 201

Created

```
{
  "template_id" : "at1628592157541dB1klWgY6"
}
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Codes

Status Code	Description
201	Created
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.6.2 Deleting Custom Alarm Templates in Batches

Function

This API is used to delete custom alarm templates in batches.

URI

POST /v2/{project_id}/alarm-templates/batch-delete

Table 6-113 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 6-114 Request header parameters

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

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-115 Request body parameters

Parameter	Mandatory	Type	Description
template_ids	Yes	Array of strings	IDs of alarm templates to be deleted in batches. Alarm templates that are not associated with alarm rules can be deleted in batches. For alarm templates that are associated with alarm rules, you can delete only one alarm template at a time. If you delete multiple ones, an exception will be returned.
delete_associate_alarm	Yes	Boolean	Whether alarm rules associated with an alarm template will be deleted when you delete the alarm template. **true** indicates that the alarm rules will be deleted. **false** indicates that only the alarm template will be deleted.

Response Parameters

Status code: 200

Table 6-116 Response body parameters

Parameter	Type	Description
template_ids	Array of strings	IDs of alarm templates that were deleted successfully.

Status code: 400

Table 6-117 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 401

Table 6-118 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-119 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-120 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Deleting custom alarm templates in batches.

```
{
  "template_ids" : [ "at1628592157541dB1klWgY6" ],
  "delete_associate_alarm" : false
}
```

Example Responses

Status code: 200

IDs of alarm templates successfully deleted.

```
{
  "template_ids" : [ "at1628592157541dB1klWgY6" ]
}
```

Status Codes

Status Code	Description
200	IDs of alarm templates successfully deleted.
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.6.3 This API is used to modify a custom template.

Function

This API is used to modify a custom template.

URI

PUT /v2/{project_id}/alarm-templates/{template_id}

Table 6-121 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
template_id	Yes	String	ID of an alarm template.

Request Parameters

Table 6-122 Request header parameters

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

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-123 Request body parameters

Parameter	Mandatory	Type	Description
template_name	Yes	String	**Definition** Alarm template name. **Constraints** N/A **Range** The value allows 1 to 128 characters. It must start with a letter and can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
template_type	No	Integer	Type of a custom alarm template. **0** indicates an alarm template for metrics. **2** indicates an alarm template for events.
template_description	No	String	**Definition** Alarm template description. **Constraints** N/A **Range** [0,256] **Default Value** An empty string
policies	Yes	Array of **Policies** objects	Alarm policies in an alarm template.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-124 Policies

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimension_name	No	String	**Definition** Resource dimension. **Constraints** The **DimensionName** field of the event alarm template is empty. **Range** The value must start with a letter. Each dimension allows a maximum of 32 characters and can only contain digits, letters, underscores (_), and hyphens (-). Multiple dimensions are separated by commas (,). A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios and **instance_id,disk** for multi-dimension scenarios. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A
extra_info	No	**MetricExtraInfo** object	**Definition** Additional information about the alarm policy. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
period	Yes	Integer	**Definition** Interval (seconds) for checking whether the alarm rule conditions are met. **Constraints** N/A **Range** The value can be: • **0**: default value. This value can be used for event alarms. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A
filter	Yes	String	**Definition** Aggregation method. **Constraints** N/A **Range** **average**, **variance**, **min**, **max**, or **sum** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
comparison_operator	Yes	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A
value	No	Number	**Definition** Alarm threshold. **Constraints** If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range** N/A **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
hierarchical_value	No	HierarchicalValue object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	No	String	**Definition** Data unit. The value can contain a maximum of 32 characters. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A
selected_unit	No	String	**Definition** The metric unit you selected. It is used for subsequent metric data display and calculation. **Constraints** N/A **Range** 0 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
count	Yes	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A
type	No	String	**Definition** Alarm policy type. This API has been deprecated. **Constraints** N/A **Range** The value can only be **auto**. **Default Value** N/A
alarm_level	No	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be: • **1**: critical • **2**: major • **3**: minor • **4**: Informational **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
suppress_duration	No	Integer	**Definition** Alarm suppression interval, in seconds. **Constraints** N/A **Range** The value can be: • **0**: An alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. • **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
			• **86400**: An alarm is generated once every day once the alarm triggering condition is met. **Default Value** N/A

Table 6-125 MetricExtraInfo

Parameter	Mandatory	Type	Description
origin_metric_name	Yes	String	**Definition** Original metric name. **Constraints** N/A **Range** 0 to 4,096 characters **Default Value** N/A
metric_prefix	No	String	**Definition** Metric name prefix. **Constraints** N/A **Range** 0 to 4,096 characters **Default Value** N/A
custom_proc_name	No	String	**Definition** Name of a process. **Constraints** N/A **Range** [0,250] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_type	No	String	**Definition** Metric type. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

Table 6-126 HierarchicalValue

Parameter	Mandatory	Type	Description
critical	No	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
major	No	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
minor	No	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	No	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

Response Parameters

Status code: 204

No Content

Status code: 400

Table 6-127 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-128 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-129 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-130 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-131 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Requests

Modifying a custom template whose **template_name** is **my_template**.

```
{
  "template_name" : "my_template",
  "template_description" : "hello world",
  "policies" : [ {
    "namespace" : "SYS.ECS",
    "dimension_name" : "instance_id",
    "metric_name" : "cpu_util",
    "period" : 300,
    "filter" : "sum",
    "comparison_operator" : ">",
    "value" : 2,
    "unit" : "bit/s",
    "count" : 2,
    "alarm_level" : 2,
    "suppress_duration" : 300
  } ]
}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.6.4 Querying Alarm Templates

Function

This API is used to query the alarm template list.

URI

GET /v2/{project_id}/alarm-templates

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-132 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Table 6-133 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Start position for pagination query, indicating the sequence number of the data record where the query starts. The default value is **0**.
limit	No	Integer	Maximum number of query results. The value ranges from **1** to **100** (default).
namespace	No	String	Namespace of a service. For details about the namespace of each service, see **Namespace**.
dim_name	No	String	Resource dimension, which must start with a letter. A dimension allows a maximum of 32 characters and can only contain digits, letters, underscores (_), and hyphens (-). Multiple dimensions are separated by commas (,).
template_type	No	String	Alarm template type. **system** indicates default alarm templates for metrics, **custom** indicates the custom alarm templates for metrics, **system_event** indicates default event templates, **custom_event** indicates the custom event templates, and **system_custom_event** indicates all default and custom event templates. If this parameter is not specified, all metric templates are returned.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
template_name	No	String	Name of an alarm template. The name must start with a letter and can contain 1 to 128 characters, including letters, digits, underscores (_), and hyphens (-). Fuzzy match is supported.
product_name	No	String	(Deprecated) Alarm templates can be queried by product name. Generally, the product name format is **Service namespace,First-level dimension of the service**, for example, **SYS.ECS,instance_id**.

Request Parameters

Table 6-134 Request header parameters

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

Response Parameters

Status code: 200

Table 6-135 Response body parameters

Parameter	Type	Description
alarm_templates	Array of **AlarmTemplates** objects	Alarm template list.
count	Integer	Total number of alarm templates.

Table 6-136 AlarmTemplates

Parameter	Type	Description
template_id	String	ID of an alarm template. The ID starts with **at** and is followed by up to 64 characters, including letters and digits.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
template_name	String	**Definition** Alarm template name. **Constraints** N/A **Range** The value allows 1 to 128 characters. It must start with a letter and can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
template_type	String	Type of an alarm template. **custom** indicates custom alarm templates, and **system** indicates default alarm templates.
create_time	String	Time when an alarm template was created.
template_description	String	**Definition** Alarm template description. **Constraints** N/A **Range** [0,256] **Default Value** An empty string

Status code: 400

Table 6-137 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-138 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-139 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-140 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Querying alarm templates.

```
/v2/{project_id}/alarm-templates?offset=0&limit=100
```

Example Responses

Status code: 200

OK

```
{
  "alarm_templates" : [ {
    "template_id" : "at1628592157541dB1klWgY6",
```

```
    "template_name" : "my_template",
    "template_type" : "custom",
    "create_time" : "2006-01-02T15:04:05.000Z",
    "template_description" : "hello world"
  } ],
  "count" : 100
}
```

Status Codes

Status Code	Description
200	OK
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.6.5 Querying Details of an Alarm Template

Function

This API is used to query details of an alarm template.

URI

GET /v2/{project_id}/alarm-templates/{template_id}

Table 6-141 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
template_id	Yes	String	ID of an alarm template. The ID starts with **at** and is followed by up to 64 characters, including letters and digits.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-142 Request header parameters

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

Response Parameters

Status code: 200

Table 6-143 Response body parameters

Parameter	Type	Description
template_id	String	ID of an alarm template. The ID starts with **at** and is followed by up to 64 characters, including letters and digits.
template_name	String	**Definition** Alarm template name. **Constraints** N/A **Range** The value allows 1 to 128 characters. It must start with a letter and can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
template_type	String	Type of an alarm template. **custom** indicates custom alarm templates, and **system** indicates default alarm templates.
create_time	String	Time when an alarm template was created.
template_description	String	**Definition** Alarm template description. **Constraints** N/A **Range** [0,256] **Default Value** An empty string

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
policies	Array of **AlarmTemplatePolicies** objects	Alarm policies in an alarm template.

Table 6-144 AlarmTemplatePolicies

Parameter	Type	Description
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimension_name	String	**Definition** Resource dimension. **Constraints** The **DimensionName** field of the event alarm template is empty. **Range** The value must start with a letter. Each dimension allows a maximum of 32 characters and can only contain digits, letters, underscores (_), and hyphens (-). Multiple dimensions are separated by commas (,). A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios and **instance_id,disk** for multi-dimension scenarios. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_name	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A
period	Integer	Interval (seconds) for checking whether the alarm rule conditions are met.
filter	String	Data rollup method.
comparison_operator	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
value	Number	Alarm threshold. If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** prevails.
hierarchical_value	**HierarchicalValue** object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	String	Data unit. The value can contain up to 32 characters.
count	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_level	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be: • **1**: critical • **2**: major • **3**: minor • **4**: Informational **Default Value** N/A
suppress_duration	Integer	Alarm suppression period, in seconds. When the period is **0**, only one alarm is generated.
selected_unit	String	**Definition** The metric unit you selected. It is used for subsequent metric data display and calculation. **Constraints** N/A **Range** 0 to 64 characters **Default Value** N/A

Table 6-145 HierarchicalValue

Parameter	Type	Description
critical	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
major	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
minor	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

Status code: 400

Table 6-146 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 401

Table 6-147 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-148 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-149 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-150 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
request_id	String	Request ID.

Example Requests

Querying details of an alarm template.

```
/v2/{project_id}/alarm-templates/{template_id}
```

Example Responses

Status code: 200

OK

```
{
  "template_id" : "at1628592157541dB1klWgY6",
  "template_name" : "my_template",
  "template_type" : "custom",
  "create_time" : "2006-01-02T15:04:05.000Z",
  "template_description" : "hello world",
  "policies" : [ {
    "namespace" : "SYS.ECS",
    "dimension_name" : "instance_id",
    "metric_name" : "cpu_util",
    "period" : 300,
    "filter" : "sum",
    "comparison_operator" : ">",
    "value" : 2,
    "hierarchical_value" : {
      "major" : 85
    },
    "unit" : "bit/s",
    "selected_unit" : "",
    "count" : 2,
    "alarm_level" : 2,
    "suppress_duration" : 300
  } ]
}
```

Status Codes

Status Code	Description
200	OK
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
404	Resource not found.
500	Internal system error.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Error Codes

See **Error Codes**.

6.7 Alarm Rules Associated with an Alarm Template

6.7.1 Querying Alarm Rules Associated with an Alarm Template

Function

This API is used to query alarm rules associated with the alarm template.

URI

GET /v2/{project_id}/alarm-templates/{template_id}/association-alarms

Table 6-151 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
template_id	Yes	String	ID of an alarm template. The ID starts with **at** and is followed by up to 64 characters, including letters and digits.

Table 6-152 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Start position for pagination query, indicating the sequence number of the data record where the query starts. The default value is **0**.
limit	No	Integer	Maximum number of query results. The value ranges from **1** to **100** (default).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-153 Request header parameters

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

Response Parameters

Status code: 200

Table 6-154 Response body parameters

Parameter	Type	Description
alarms	Array of **alarms** objects	Alarm rule list.
count	Integer	Total number of alarm rules.

Table 6-155 alarms

Parameter	Type	Description
alarm_id	String	Alarm rule ID.
name	String	Alarm rule name.
description	String	Description of the alarm rule.

Status code: 400

Table 6-156 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-157 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-158 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-159 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Query alarm rules associated with an alarm template.

```
/v2/{project_id}/alarm-templates/{template_id}/association-alarms
```

Example Responses

Status code: 200

OK

```
{
  "alarms" : [ {
    "alarm_id" : "al12345678901234567890",
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
    "name" : "test",
    "description" : "Alarm rule list."
  } ],
  "count" : 100
}
```

Status Codes

Status Code	Description
200	OK
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.8 Resource Groups

6.8.1 Creating a Resource Group (Recommended)

Function

This API is used to create a resource group.

URI

POST /v2/{project_id}/resource-groups

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-160 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 6-161 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token. **Constraints** N/A **Range** 1 to 16,384 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-162 Request body parameters

Parameter	Mandatory	Type	Description
group_name	Yes	String	**Definition** Resource group name. **Constraints** N/A **Range** The value allows 1 to 128 characters. It can only contain letters, digits, hyphens (-), and underscores (_). **Default Value** N/A
enterprise_project_id	No	String	**Definition** ID of the enterprise project that a resource group belongs to. **Constraints** N/A **Range** The value can be **0** (default enterprise project ID) or consists of digits, letters, or hyphens (-). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
type	No	String	**Definition** Method for adding resources to a resource group. **Constraints** N/A **Range** The value can only be **EPS** (synchronizing resources from enterprise projects), **TAG** (dynamic tag matching), **NAME** (matching resources by instance name), or **COMB** (matching resources by multiple criteria). If this parameter is not specified, resources are manually added. **Default Value** N/A
tags	No	Array of **ResourceGroupTagRelation** objects	**Definition** Associated tags during dynamic tag matching. **Constraints** This parameter is mandatory when **type** is set to **TAG**. A maximum of 50 tags are allowed.
association_ep_ids	No	Array of strings	**Definition** ID of the enterprise project from which resources in the resource group come. **Constraints** This parameter is mandatory when **type** is set to **EPS**. The value can contain a maximum of 50 enterprise project IDs.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
providers	No	String	**Definition** Cloud service name in the **dcs,ecs** format. For details about supported cloud services (**providers**), see section "Supported Services and Resource Types" in Config API Reference. **Constraints** N/A **Range** [0,512] **Default Value** N/A
enterprise_project_id_and_tags	No	Array of **EnterpriseProjectIdAndTags** objects	**Definition** Parameter for matching resources by enterprise project or tag. **Constraints** A maximum of 50 conditions are allowed.
resources	No	Array of **Resource** objects	**Definition** Resource details when resources are manually added. **Constraints** Max. 1,000 resources
product_resources	No	Array of **ProductResource** objects	**Definition** Resource details when the resource level is cloud product and resources are manually added. **Constraints** A maximum of 50 resources are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
instances	No	Array of **Instance** objects	**Definition** Parameter transferred for matching resources by instance name. **Constraints** This parameter is mandatory when **type** is set to **NAME**. The value can contain a maximum of 50 instances.
product_names	No	String	Name of a cloud product when the resource level is cloud product. Generally, the value format is *Service namespace,First-level dimension of the service*, for example, **SYS.ECS,instance_id**. Multiple cloud products are separated by semicolons (;), for example, **SERVICE.BMS,instance_id;SYS.ECS,instance_id**. **Constraints**: N/A **Range** [0,10240] **Default Value** N/A
resource_level	No	String	**Definition** Resource level, which indicates the effective resource scope. If you select **Cloud product** for **Resource Level**, resources from the selected cloud product and its dimensions will be added to the resource group. If you select **Specific dimension** for **Resource Level**, only resources from the specific sub-dimension will be added. **Constraints** N/A **Range** **product**: cloud product • **dimension**: specific dimension **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
comb_relation	No	CombRelation object	**Definition** Matching resources by combined conditions. **Constraints** N/A

Table 6-163 ResourceGroupTagRelation

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** TMS tag key specifications. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A
operator	No	String	**Definition** Tag operator, which indicates the relationship between the tag key and value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal. If **operator** is **equal** and **value** is an empty string, all tag values of the key are matched. • **all**: all **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
value	No	String	**Definition** TMS tag value specifications. **Constraints** N/A **Range** 0 to 255 characters **Default Value** N/A

Table 6-164 EnterpriseProjectIdAndTags

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value allows 1 to 128 characters and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
tag	No	**ResourceGroupTagRelation** object	**Definition** Tag matching rule. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-165 Resource

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimensions	Yes	Array of **ResourceDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-166 ResourceDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service Metric Dimensions**. **Constraints** N/A **Range** The value starts with a letter and allows 1 to 32 characters. It can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-167 ProductResource

Parameter	Mandatory	Type	Description
product_name	Yes	String	**Definition** Cloud product that the resource belongs to. Generally, the value format is *Service namespace,First-level dimension name of the service*, for example, **SYS.ECS,instance_id**. **Constraints** N/A **Range** 0 to 128 characters **Default Value** N/A
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). It must contain 3 to 32 characters. **Default Value** N/A
product_instances	Yes	Array of **ProductInstance** objects	**Definition** Product instance details. **Constraints** N/A **Range** Max. 1,000 instances

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-168 ProductInstance

Parameter	Mandatory	Type	Description
first_dimension_name	Yes	String	**Definition** First-level dimension of the resource. For example, the dimension of an ECS is **instance_id**. **Constraints** N/A **Range** Resource dimension. The value must start with a letter and allows a maximum of 32 characters. It can only contain digits, letters, underscores (_), and hyphens (-). **Default Value** N/A
first_dimension_value	Yes	String	**Definition** First-level dimension value of the resource, which is the resource ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A
resource_name	Yes	String	**Definition** Resource name. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-169 Instance

Parameter	Mandatory	Type	Description
product_name	Yes	String	**Definition** Cloud product name. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A
logical_operator	Yes	String	**Definition** Logical operator. **Constraints** N/A **Range** • **ALL**: All conditions are matched. • **ANY**: Any condition is matched. **Default Value** N/A
instance_names	Yes	Array of **ResourceNameItem** objects	**Definition** Parameter array for matching resources by resource name. **Constraints** A maximum of 10 names are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-170 ResourceNameItem

Parameter	Mandatory	Type	Description
resource_name	No	String	**Definition** Resource name condition value. **Constraints** N/A **Range** 0 to 128 characters **Default Value** N/A
operator	Yes	String	**Definition** Instance operator, which indicates the operation relationship between the actual resource name and the resource name condition value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal • **all**: all **Default Value** N/A
resource_name_is_ignore_case	No	Boolean	**Definition** Resource name (case insensitive). **Constraints** N/A **Range** • **true**: case insensitive • **false**: case sensitive **Default Value** false

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-171 CombRelation

Parameter	Mandatory	Type	Description
logical_operator	Yes	String	**Definition** Logical operator. **Constraints** N/A **Range** • **ALL**: All conditions are matched. • **ANY**: Any condition is matched. **Default Value** N/A
conditions	Yes	Array of **Condition** objects	**Definition** Combined matching conditions for resource groups. **Constraints** A maximum of 50 conditions are allowed.

Table 6-172 Condition

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value can be **0** (ID of the default enterprise project) or consists of digits, letters, or hyphens (-). **Default Value** N/A
instance_name	No	**CombResourceName** object	Matching resources by resource name.
tag	No	**ResourceGroupTagRelation** object	**Definition** Tag matching rule. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-173 CombResourceName

Parameter	Mandatory	Type	Description
resource_name	No	String	**Definition** Resource name condition value. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A
operator	Yes	String	**Definition** Instance operator, which indicates the operation relationship between the actual resource name and the resource name condition value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal **Default Value** N/A
resource_name_is_ignore_case	No	Boolean	**Definition** Resource name (case insensitive). **Constraints** N/A **Range** • **true**: case insensitive • **false**: case sensitive **Default Value** false

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 6-174 Response body parameters

Parameter	Type	Description
group_id	String	**Definition** Resource group ID. **Constraints** N/A **Range** The value starts with **rg** and is followed by 22 characters that may include letters, digits, or a combination of both. It can contain 2 to 24 characters. **Default Value** N/A

Status code: 400

Table 6-175 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-176 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 403

Table 6-177 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-178 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Creating a resource group whose **group _name** is **rg_test** and **type** is **TAG**.

```
{
  "group_name" : "rg_test",
  "enterprise_project_id" : "0",
  "type" : "TAG",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  } ],
  "association_ep_ids" : [ "d61d4705-5658-42f5-8e0c-70eb34d17b02" ]
}
```

Example Responses

Status code: 200

Created

```
{
  "group_id" : "rg0123456789xxx"
}
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Codes

Status Code	Description
200	Created
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.8.2 This API is used to delete resource groups in batches.

Function

This API is used to delete resource groups in batches.

URI

POST /v2/{project_id}/resource-groups/batch-delete

Table 6-179 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 6-180 Request header parameters

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

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-181 Request body parameters

Parameter	Mandatory	Type	Description
group_ids	Yes	Array of strings	IDs of resource groups to be deleted in batches.

Response Parameters

Status code: 200

Table 6-182 Response body parameters

Parameter	Type	Description
group_ids	Array of strings	IDs of resource groups that were successfully deleted.

Status code: 400

Table 6-183 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-184 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-185 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-186 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Batch deleting resource groups.

```
{
  "group_ids" : [ "rg0123456789xxxx" ]
}
```

Example Responses

Status code: 200

IDs of resource groups that were successfully deleted.

```
{
  "group_ids" : [ "rg0123456789xxxx" ]
}
```

Status Codes

Status Code	Description
200	IDs of resource groups that were successfully deleted.
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Code	Description
500	Internal system error.

Error Codes

See **Error Codes**.

6.8.3 Modifying a Resource Group

Function

This API is used to modify a resource group.

URI

PUT /v2/{project_id}/resource-groups/{group_id}

Table 6-187 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
group_id	Yes	String	Resource group ID, which starts with **rg** and is followed by 22 characters, including letters and digits.

Request Parameters

Table 6-188 Request header parameters

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

Table 6-189 Request body parameters

Parameter	Mandatory	Type	Description
group_name	Yes	String	Resource group name. The value can contain up to 128 characters, including letters, digits, hyphens (-), and underscores (_).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
tags	No	Array of **ResourceGroupTagRelation** objects	Associated tag during dynamic tag matching. This parameter must be specified when **type** is set to **TAG**.
enterprise_project_id_and_tags	No	Array of **EnterpriseProjectIdAndTags** objects	Parameter transferred when **Matching Resource By** is set to **Multiple criteria**.
extend_relation_ids	No	Array of strings	Parameter transferred for matching resources by enterprise project when **Add Resources** is set to **Automatically**.
instances	No	Array of **Instance** objects	Parameter transferred for matching resources by instance name.
product_names	No	String	Value of a cloud product when the resource level is changed to cloud product. Generally, the value format is *Service namespace,First-level dimension of the service*, for example, **SYS.ECS,instance_id**. Multiple cloud products are separated by semicolons (;), for example, **SERVICE.BMS,instance_id;SYS.ECS,instance_id**.
comb_relation	No	**CombRelation** object	**Definition** Matching resources by combined conditions. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-190 ResourceGroupTagRelation

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** TMS tag key specifications. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A
operator	No	String	**Definition** Tag operator, which indicates the relationship between the tag key and value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal. If **operator** is **equal** and **value** is an empty string, all tag values of the key are matched. • **all**: all **Default Value** N/A
value	No	String	**Definition** TMS tag value specifications. **Constraints** N/A **Range** 0 to 255 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-191 EnterpriseProjectIdAndTags

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value allows 1 to 128 characters and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
tag	No	**ResourceGroupTagRelation** object	**Definition** Tag matching rule. **Constraints** N/A

Table 6-192 Instance

Parameter	Mandatory	Type	Description
product_name	Yes	String	**Definition** Cloud product name. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
logical_operator	Yes	String	**Definition** Logical operator. **Constraints** N/A **Range** • **ALL**: All conditions are matched. • **ANY**: Any condition is matched. **Default Value** N/A
instance_names	Yes	Array of **ResourceNameItem** objects	**Definition** Parameter array for matching resources by resource name. **Constraints** A maximum of 10 names are allowed.

Table 6-193 ResourceNameItem

Parameter	Mandatory	Type	Description
resource_name	No	String	**Definition** Resource name condition value. **Constraints** N/A **Range** 0 to 128 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
operator	Yes	String	**Definition** Instance operator, which indicates the operation relationship between the actual resource name and the resource name condition value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal • **all**: all **Default Value** N/A
resource_name_is_ignore_case	No	Boolean	**Definition** Resource name (case insensitive). **Constraints** N/A **Range** • **true**: case insensitive • **false**: case sensitive **Default Value** false

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-194 CombRelation

Parameter	Mandatory	Type	Description
logical_operator	Yes	String	**Definition** Logical operator. **Constraints** N/A **Range** • **ALL**: All conditions are matched. • **ANY**: Any condition is matched. **Default Value** N/A
conditions	Yes	Array of **Condition** objects	**Definition** Combined matching conditions for resource groups. **Constraints** A maximum of 50 conditions are allowed.

Table 6-195 Condition

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value can be **0** (ID of the default enterprise project) or consists of digits, letters, or hyphens (-). **Default Value** N/A
instance_name	No	**CombResourceName** object	Matching resources by resource name.
tag	No	**ResourceGroupTagRelation** object	**Definition** Tag matching rule. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-196 CombResourceName

Parameter	Mandatory	Type	Description
resource_name	No	String	**Definition** Resource name condition value. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A
operator	Yes	String	**Definition** Instance operator, which indicates the operation relationship between the actual resource name and the resource name condition value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal **Default Value** N/A
resource_name_is_ignore_case	No	Boolean	**Definition** Resource name (case insensitive). **Constraints** N/A **Range** • **true**: case insensitive • **false**: case sensitive **Default Value** false

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 204

No Content

Status code: 400

Table 6-197 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-198 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-199 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-200 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-201 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Modify the resource group named **rg_test**.

```
{
  "group_name" : "test",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  } ]
}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
404	Resource not found.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Code	Description
500	Internal system error.

Error Codes

See **Error Codes**.

6.8.4 Querying Details of a Resource Group

Function

This API is used to query details of a resource group.

URI

GET /v2/{project_id}/resource-groups/{group_id}

Table 6-202 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
group_id	Yes	String	Resource group ID, which starts with **rg** and is followed by 22 characters, including letters and digits.

Request Parameters

Table 6-203 Request header parameters

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

Response Parameters

Status code: 200

Table 6-204 Response body parameters

Parameter	Type	Description
group_name	String	Resource group name.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
group_id	String	Resource group ID, which starts with **rg** and is followed by 22 characters, including letters and digits.
create_time	String	Time when a resource group was created.
enterprise_project_id	String	ID of the enterprise project that a resource group belongs to.
type	String	Resource adding/matching mode. The value can only be EPS (matching enterprise projects), TAG (matching tags), NAME (matching instance names), COMB (combination matching), or Manual (manual adding).
association_ep_ids	Array of strings	ID of the enterprise project from which resources in the resource group come. This parameter is mandatory when **type** is set to **EPS**.
tags	Array of **ResourceGroupTagRelation** objects	Specified tag rule when the resource matching rule is tag matching.
instances	Array of **Instance** objects	Parameter transferred for matching resources by instance name.
comb_relation	**CombRelation** object	**Definition** Matching resources by combined conditions. **Constraints** N/A
related_ep_ids	Array of strings	List of specified enterprise projects when the resource matching rule is enterprise project matching.
enterprise_project_id_and_tags	Array of **EnterpriseProjectIdAndTags** objects	Parameter for matching resources by enterprise project or tag.
status	String	Metric alarm status. The value can be health (alarming), unhealthy (triggered), or no_alarm_rule (no alarm rule is set).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
event_status	String	Event alarm status. The value can be health (alarming), unhealthy (triggered), or no_alarm_rule (no alarm rule is set).
resource_statistics	**resource_statistics** object	Resource quantity statistics.
resource_level	String	**dimension** indicates the sub-dimension, and **product** indicates the cloud product.
product_names	String	Value of a cloud product when the resource level is cloud product. Generally, the value consists of the service namespace and the first-level dimension name of the service, for example, SYS.ECS,instance_id. Use semicolons (;) to separate multiple cloud products, for example, "SERVICE.BMS,instance_id;SYS.ECS,instance_id".
ep_resource_statistics	Array of **EpResourceStatistics** objects	Status of resources associated with each enterprise project

Table 6-205 ResourceGroupTagRelation

Parameter	Type	Description
key	String	**Definition** TMS tag key specifications. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
operator	String	**Definition** Tag operator, which indicates the relationship between the tag key and value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal. If **operator** is **equal** and **value** is an empty string, all tag values of the key are matched. • **all**: all **Default Value** N/A
value	String	**Definition** TMS tag value specifications. **Constraints** N/A **Range** 0 to 255 characters **Default Value** N/A

Table 6-206 Instance

Parameter	Type	Description
product_name	String	**Definition** Cloud product name. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
logical_operator	String	**Definition** Logical operator. **Constraints** N/A **Range** • **ALL**: All conditions are matched. • **ANY**: Any condition is matched. **Default Value** N/A
instance_names	Array of **ResourceNameItem** objects	**Definition** Parameter array for matching resources by resource name. **Constraints** A maximum of 10 names are allowed.

Table 6-207 ResourceNameItem

Parameter	Type	Description
resource_name	String	**Definition** Resource name condition value. **Constraints** N/A **Range** 0 to 128 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
operator	String	**Definition** Instance operator, which indicates the operation relationship between the actual resource name and the resource name condition value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal • **all**: all **Default Value** N/A
resource_name_is_ignore_case	Boolean	**Definition** Resource name (case insensitive). **Constraints** N/A **Range** • **true**: case insensitive • **false**: case sensitive **Default Value** false

Table 6-208 CombRelation

Parameter	Type	Description
logical_operator	String	**Definition** Logical operator. **Constraints** N/A **Range** • **ALL**: All conditions are matched. • **ANY**: Any condition is matched. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
conditions	Array of **Condition** objects	**Definition** Combined matching conditions for resource groups. **Constraints** A maximum of 50 conditions are allowed.

Table 6-209 Condition

Parameter	Type	Description
enterprise_project_id	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value can be **0** (ID of the default enterprise project) or consists of digits, letters, or hyphens (-). **Default Value** N/A
instance_name	**CombResourceName** object	Matching resources by resource name.
tag	**ResourceGroupTagRelation** object	**Definition** Tag matching rule. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-210 CombResourceName

Parameter	Type	Description
resource_name	String	**Definition** Resource name condition value. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A
operator	String	**Definition** Instance operator, which indicates the operation relationship between the actual resource name and the resource name condition value. **Constraints** N/A **Range** • **include**: include • **prefix**: prefix • **suffix**: suffix • **notInclude**: not included • **equal**: equal **Default Value** N/A
resource_name_is_ignore_case	Boolean	**Definition** Resource name (case insensitive). **Constraints** N/A **Range** • **true**: case insensitive • **false**: case sensitive **Default Value** false

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-211 EnterpriseProjectIdAndTags

Parameter	Type	Description
enterprise_project_id	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value allows 1 to 128 characters and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
tag	**ResourceGroupTagRelation** object	**Definition** Tag matching rule. **Constraints** N/A

Table 6-212 resource_statistics

Parameter	Type	Description
unhealthy	Integer	Number of resources in the alarm
total	Integer	Total number of resources.
event_unhealthy	Integer	Number of triggered resources
namespaces	Integer	Resource Types

Table 6-213 EpResourceStatistics

Parameter	Type	Description
extend_relation_id	String	Enterprise project ID
unhealthy	Integer	Number of resources in the alarm
total	Integer	Total number of resources.
event_unhealthy	Integer	Number of triggered resources
namespaces	Integer	Resource Types

Status code: 400

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-214 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-215 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-216 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-217 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 500

Table 6-218 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Query details of a resource group.

```
/v2/{project_id}/resource-groups/{group_id}
```

Example Responses

Status code: 200

OK

```
{
  "group_name" : "band",
  "type" : "TAG",
  "tags" : [ {
    "key" : "Resource",
    "value" : "VPC"
  }, {
    "key" : "Usage",
    "value" : "Tmp"
  } ],
  "create_time" : "2006-01-02T15:04:05.000Z",
  "group_id" : "rg0123456789xxxx",
  "enterprise_project_id" : "0"
}
```

Status Codes

Status Code	Description
200	OK
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
404	Resource not found.
500	Internal system error.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Error Codes

See **Error Codes**.

6.8.5 Querying Resource Groups

Function

This API is used to query resource groups.

URI

GET /v2/{project_id}/resource-groups

Table 6-219 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Table 6-220 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	ID of the enterprise project that a resource group belongs to.
group_name	No	String	Resource group name. Fuzzy search is supported.
group_id	No	String	Resource group ID, which starts with **rg** and is followed by 22 characters, including letters and digits.
offset	No	Integer	Start position for pagination query, indicating the sequence number of the data record where the query starts. The default value is **0**.
limit	No	Integer	Number of items on each page during pagination query. The value ranges from **1** to **100** (default).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
type	No	String	Method for adding resources to a resource group. The value can only be **EPS** (synchronizing resources from enterprise projects), **TAG** (dynamic tag matching), **Manual** (manually adding resources), COMB (automatically adding resources – matching by multiple criteria), or **NAME** (fuzzy matching by resource name). If this parameter is not specified, all resource groups are queried.

Request Parameters

Table 6-221 Request header parameters

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

Response Parameters

Status code: 200

Table 6-222 Response body parameters

Parameter	Type	Description
count	Integer	Total number of resource groups.
resource_groups	Array of **OneResourceGroupResp** objects	Resource group list.

Table 6-223 OneResourceGroupResp

Parameter	Type	Description
group_name	String	Resource group name.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
group_id	String	Resource group ID, which starts with **rg** and is followed by 22 characters, including letters and digits.
create_time	String	Time when a resource group was created.
enterprise_project_id	String	ID of the enterprise project that a resource group belongs to.
type	String	Resource adding/matching mode. The value can only be EPS (matching enterprise projects), TAG (matching tags), NAME (matching instance names), COMB (combination matching), or Manual (manual adding).
status	String	Metric alarm status. The value can be health (alarming), unhealthy (triggered), or no_alarm_rule (no alarm rule is set).
event_status	String	Event alarm status. The value can be health (alarming), unhealthy (triggered), or no_alarm_rule (no alarm rule is set).
resource_statistics	**resource_statistics** object	Resource quantity statistics.
related_ep_ids	Array of strings	List of specified enterprise projects when the resource matching rule is enterprise project matching.
association_alarm_templates	Array of **AssociationAlarmTemplate** objects	List of associated alarm templates.

Table 6-224 resource_statistics

Parameter	Type	Description
unhealthy	Integer	Number of resources in the alarm
total	Integer	Total number of resources.
event_unhealthy	Integer	Number of triggered resources
namespaces	Integer	Resource Types

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-225 AssociationAlarmTemplate

Parameter	Type	Description
template_id	String	ID of an alarm template.
template_name	String	Alarm template name

Status code: 400

Table 6-226 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-227 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-228 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-229 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

Query resource groups.

```
/v2/{project_id}/resource-groups?offset=0&limit=100
```

Example Responses

Status code: 200

OK

```
{
  "resource_groups" : [ {
    "group_name" : "group1",
    "create_time" : "2006-01-02T15:04:05.000Z",
    "group_id" : "rg0123456789xxxx",
    "enterprise_project_id" : "0",
    "type" : "Manual"
  }, {
    "group_name" : "band",
    "type" : "EPS",
    "create_time" : "2006-01-02T15:04:05.000Z",
    "group_id" : "rg0123456789xxxx",
    "enterprise_project_id" : "d61d4705-5658-42f5-8e0c-70eb34d17b02"
  }, {
    "group_name" : "group2",
    "type" : "TAG",
    "create_time" : "2006-01-02T15:04:05.000Z",
    "group_id" : "rg0123456789xxxx",
    "enterprise_project_id" : "0"
  } ],
  "count" : 3
}
```

Status Codes

Status Code	Description
200	OK
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Error Codes

See **Error Codes**.

6.9 Resources in a Resource Group

6.9.1 Batch Adding Resources to a Resource Group

Function

This API is used to batch add resources to a resource group whose **type** is **Manual**.

URI

POST /v2/{project_id}/resource-groups/{group_id}/resources/batch-create

Table 6-230 Path Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	Resource group ID, which starts with **rg** and is followed by 22 characters, including letters and digits.
project_id	Yes	String	Project ID.

Request Parameters

Table 6-231 Request header parameters

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

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-232 Request body parameters

Parameter	Mandatory	Type	Description
resources	No	Array of **Resource** objects	When the resource adding mode is manual creation and the resource level is sub-dimension, only the information about the new resource needs to be transferred when the resource is added to the resource group.
product_resources	No	Array of **ProductResource** objects	If the resource adding mode is manual creation and the resource level is cloud product, information about both existing and new resources needs to be transferred when resources are added to a resource group.

Table 6-233 Resource

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dimensions	Yes	Array of **ResourceDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.

Table 6-234 ResourceDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service Metric Dimensions**. **Constraints** N/A **Range** The value starts with a letter and allows 1 to 32 characters. It can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-235 ProductResource

Parameter	Mandatory	Type	Description
product_name	Yes	String	**Definition** Cloud product that the resource belongs to. Generally, the value format is *Service namespace,First-level dimension name of the service*, for example, **SYS.ECS,instance_id**. **Constraints** N/A **Range** 0 to 128 characters **Default Value** N/A
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). It must contain 3 to 32 characters. **Default Value** N/A
product_instances	Yes	Array of **ProductInstance** objects	**Definition** Product instance details. **Constraints** N/A **Range** Max. 1,000 instances

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-236 ProductInstance

Parameter	Mandatory	Type	Description
first_dimension_name	Yes	String	**Definition** First-level dimension of the resource. For example, the dimension of an ECS is **instance_id**. **Constraints** N/A **Range** Resource dimension. The value must start with a letter and allows a maximum of 32 characters. It can only contain digits, letters, underscores (_), and hyphens (-). **Default Value** N/A
first_dimension_value	Yes	String	**Definition** First-level dimension value of the resource, which is the resource ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A
resource_name	Yes	String	**Definition** Resource name. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 6-237 Response body parameters

Parameter	Type	Description
succeed_count	Integer	Number of resources that were added.

Status code: 400

Table 6-238 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-239 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-240 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Requests

Batch adding resources to a custom resource group.

```
{
  "resources" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instace_id",
      "value" : "4270ff17-aba3-4138-89fa-820594c39755"
    } ]
  } ]
}
```

Example Responses

Status code: 200

Resources added.

```
{
  "succeed_count" : 4
}
```

Status Codes

Status Code	Description
200	Resources added.
400	Parameter verification failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.9.2 Batch Deleting Resources from a Resource Group

Function

This API is used to batch delete resources from a resource group whose **type** is **Manual**.

URI

POST /v2/{project_id}/resource-groups/{group_id}/resources/batch-delete

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-241 Path Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	Resource group ID, which starts with **rg** and is followed by 22 characters, including letters and digits.
project_id	Yes	String	Project ID.

Request Parameters

Table 6-242 Request header parameters

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

Table 6-243 Request body parameters

Parameter	Mandatory	Type	Description
resources	No	Array of **Resource** objects	When the resource adding mode is manual creation and the resource level is sub-dimension, only the information about the deleted resource needs to be transferred when the resource is deleted from the resource group.
product_resources	No	Array of **ProductResource** objects	When the resource adding mode is manual creation and the resource level is cloud product, only the information about the deleted resource needs to be transferred when the resource is deleted from the resource group.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-244 Resource

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimensions	Yes	Array of **ResourceDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-245 ResourceDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service Metric Dimensions**. **Constraints** N/A **Range** The value starts with a letter and allows 1 to 32 characters. It can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-246 ProductResource

Parameter	Mandatory	Type	Description
product_name	Yes	String	**Definition** Cloud product that the resource belongs to. Generally, the value format is *Service namespace,First-level dimension name of the service*, for example, **SYS.ECS,instance_id**. **Constraints** N/A **Range** 0 to 128 characters **Default Value** N/A
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). It must contain 3 to 32 characters. **Default Value** N/A
product_instances	Yes	Array of **ProductInstance** objects	**Definition** Product instance details. **Constraints** N/A **Range** Max. 1,000 instances

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-247 ProductInstance

Parameter	Mandatory	Type	Description
first_dimension_name	Yes	String	**Definition** First-level dimension of the resource. For example, the dimension of an ECS is **instance_id**. **Constraints** N/A **Range** Resource dimension. The value must start with a letter and allows a maximum of 32 characters. It can only contain digits, letters, underscores (_), and hyphens (-). **Default Value** N/A
first_dimension_value	Yes	String	**Definition** First-level dimension value of the resource, which is the resource ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A
resource_name	Yes	String	**Definition** Resource name. **Constraints** N/A **Range** 1 to 128 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 6-248 Response body parameters

Parameter	Type	Description
succeed_count	Integer	Number of resources that were successfully deleted.

Status code: 400

Table 6-249 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-250 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-251 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Requests

Batch delete resources from a custom resource group.

```
{
  "resources" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instace_id",
      "value" : "4270ff17-aba3-4138-89fa-820594c39755"
    } ]
  } ]
}
```

Example Responses

Status code: 200

Resources deleted.

```
{
  "succeed_count" : 4
}
```

Status Codes

Status Code	Description
200	Resources deleted.
400	Parameter verification failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.9.3 Querying Resources of a Specified Dimension and a Specified Service Type in a Resource Group

Function

This API is used to query resources of a specified dimension for a specified resource type in a resource group.

URI

GET /v2/{project_id}/resource-groups/{group_id}/services/{service}/resources

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-252 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
group_id	Yes	String	Resource group ID, which starts with **rg** and is followed by 22 characters, including letters and digits.
service	Yes	String	Service type, for example, **SYS.ECS**.

Table 6-253 Query Parameters

Parameter	Mandatory	Type	Description
dim_name	No	String	Resource dimension. Multiple dimensions are separated with commas (,) in alphabetical order.
limit	No	String	Number of items on each page during pagination query. The value ranges from **1** to **100** (default).
offset	No	Integer	Start position for pagination query, indicating the sequence number of the data record where the query starts. The default value is **0**.
status	No	String	Resource health status. The value can only be **health**, **unhealthy**, or **no_alarm_rule**. **health**: An alarm rule has been created for the resource and there is no alarm triggered. **unhealthy**: An alarm rule has been created for the resource and there are alarms triggered. **no_alarm_rule**: No alarm rule has been created for the resource.
dim_value	No	String	Resource dimension value. Fuzzy match is not supported. If a resource has multiple dimensions, you can specify one of them.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
tag	No	String	Resource tag information. The format is *"[key]":"[value]"*, for example: **"ssss":"1111"**.
extend_relation_id	No	String	Enterprise project ID.
product_name	No	String	Cloud product of the resource group. Generally, the value format is *Service namespace,First-level dimension name of the service*, for example, **SYS.ECS,instance_id**.
resource_name	No	String	Resource name.
event_status	No	String	Resource health status. The value can only be **health**, **unhealthy**, or **no_alarm_rule**. **health**: An event alarm rule has been created for the resource and there is no alarm triggered. **unhealthy**: An event alarm rule has been created for the resource and there are alarms triggered. **no_alarm_rule**: No event alarm rule has been created for the resource.

Request Parameters

Table 6-254 Request header parameters

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

Response Parameters

Status code: 200

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-255 Response body parameters

Parameter	Type	Description
count	Integer	Total number of resources.
resources	Array of **GetResourceGroupResources** objects	Resources in a resource group.

Table 6-256 GetResourceGroupResources

Parameter	Type	Description
status	String	Metric alarm status. The value can be health (alarming), unhealthy (triggered), or no_alarm_rule (no alarm rule is set).
dimensions	Array of **ResourceDimension** objects	Resource dimension information.
tags	String	Resource tag information. The value is a JSON character string in the format of *key/value*, for example, **"{"sss":"aaa"}"**.
enterprise_project_id	String	Enterprise Project ID.
event_status	String	Event alarm status. The value can be health (alarming), unhealthy (triggered), or no_alarm_rule (no alarm rule is set).
resource_name	String	Resource name

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-257 ResourceDimension

Parameter	Type	Description
name	String	**Definition** Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service Metric Dimensions**. **Constraints** N/A **Range** The value starts with a letter and allows 1 to 32 characters. It can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Status code: 400

Table 6-258 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-259 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-260 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-261 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-262 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Requests

Query resources of a specified dimension for a specified resource type in a resource group.

```
'/v2/{project_id}/resource-groups/{group_id}/services/{service}/resources'
```

Example Responses

Status code: 200

OK

```
{
  "count" : 1000,
  "resources" : [ {
    "status" : "health",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "4270ff17-aba3-4138-89fa-820594c39755"
    } ]
  } ]
}
```

Status Codes

Status Code	Description
200	OK
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.10 One-Click Monitoring

6.10.1 Enabling One-Click Monitoring

Function

This API is used to enable one-click monitoring.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

URI

POST /v2/{project_id}/one-click-alarms

Table 6-263 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 6-264 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-265 Request body parameters

Parameter	Mandatory	Type	Description
one_click_alarm_id	Yes	String	**Definition** One-click monitoring rule ID. **Constraints** N/A **Range** The value allows only letters and digits and can contain 1 to 64 characters. **Default Value** N/A
dimension_names	Yes	**DimensionNames** object	Dimensions in metric and event alarm rules that have one-click monitoring enabled. One-click monitoring must be enabled for at least one type of alarm rules.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notification_enabled	Yes	Boolean	**Definition** Whether to enable alarm notifications. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true
alarm_notifications	No	Array of **Notification** objects	**Definition**: Notification group or topic subscription for alarm notifications. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.
ok_notifications	No	Array of **Notification** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.
notification_begin_time	No	String	**Definition** Time when alarm notifications were enabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notification_end_time	No	String	**Definition** Time when alarm notifications were disabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A
effective_timezone	No	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A
notification_manner	No	String	Notification mode, which can be **NOTIFICATION_GROUP** (notification groups), **TOPIC_SUBSCRIPTION** (topic subscriptions), or **NOTIFICATION_POLICY** (notification policies).
notification_policy_ids	No	Array of strings	Associated notification policy IDs.
is_reset	No	Boolean	Whether to reset the default policy of one-click monitoring.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
enabled_alarm_ids	No	Array of strings	**Definition** IDs of the one-click monitoring rules to be enabled. The default value is the IDs of all one-click monitoring rules of the service with one-click monitoring enabled. **Constraints** The array can contain 0 to 50 elements. **Range** N/A **Default Value** All one-click monitoring rules of the service.
one_click_update_alarms	No	Array of **one_click_update_alarms** objects	Parameters required when alarm policies and notifications need to be modified at the same time when one-click monitoring is enabled. Currently, you can only modify the notification policies.

Table 6-266 DimensionNames

Parameter	Mandatory	Type	Description
metric	Yes	Array of strings	Dimensions in metric alarm rules that have one-click monitoring enabled. One-click monitoring are disabled by default for unspecified dimensions.
event	Yes	Array of strings	Dimensions in event alarm rules that have one-click monitoring enabled. One-click monitoring are disabled by default for unspecified dimensions. "" indicates enable one-click monitoring for all dimensions.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-267 Notification

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Notification type. **Constraints** N/A **Range** The value can be: • **notification**: SMN notifications • **contact**: account contacts • **contactGroup**: notification groups • autoscaling: AS notifications. This value is used only for AS. • **groupwatch**: deprecated • **ecsRecovery**: deprecated • **iecAction**: deprecated **Default Value** N/A
notification_list	Yes	Array of strings	**Definition** Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics". **Constraints** If **type** is set to **notification**, the value of **notification_list** cannot be left blank. If **type** is set to **autoscaling**, the value of **notification_list** must be left blank. If **notification_enabled** is set to **true**, you must specify either **alarm_notifications** or **ok_notifications**. If both **alarm_notifications** and **ok_notifications** are specified, their **notification_list** values must be the same. A maximum of 20 recipients are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-268 one_click_update_alarms

Parameter	Mandatory	Type	Description
alarm_id	No	String	**Definition** Alarm rule ID. **Constraints** N/A **Range** The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value** N/A
name	No	String	**Definition** Alarm name. **Constraints** N/A **Range** The value allows 1 to 128 characters and can contain digits, letters, underscores (_), and hyphens (-). **Default Value** N/A
description	No	String	**Definition** Alarm description. **Constraints** N/A **Range** [0,256] **Default Value** N/A
namespace	No	String	Namespace of a service. For details about the namespace of each service, see **Namespace**.
policies	No	Array of **Policy** objects	Alarm policies.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
resources	No	Array<Array<Dimension>>	Resource list. Associated resources can be obtained by calling the API for querying resources in an alarm rule.
type	No	String	**Definition** Alarm rule type. **Constraints** N/A **Range** The value can be: • **ALL_INSTANCE**: alarms for all resources • **RESOURCE_GROUP**: alarms for resource groups • **MULTI_INSTANCE**: alarms for specified resources • **EVENT.SYS**: system event alarms • **EVENT.CUSTOM**: custom event alarms • **DNSHealthCheck**: health check alarms **Default Value** N/A
enabled	No	Boolean	**Definition** Whether to enable the alarm rule. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notification_enabled	No	Boolean	**Definition** Whether to enable alarm notifications. Whether to enable alarm notifications for one-click monitoring is determined by the outer-layer parameter **notification_enabled**. The inner-layer parameter is deprecated. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true
alarm_notifications	No	Array of **Notification** objects	**Definition** Notification group or topic subscription for alarm notifications. Whether to enable alarm notifications for one-click monitoring is determined by the outer-layer parameter **alarm_notifications**. The inner-layer parameter is deprecated. **Constraints** N/A **Range** A maximum of 10 notification groups or topic subscriptions can be configured. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
ok_notifications	No	Array of **Notification** objects	**Definition** Information about the notification group or topic subscription when the alarm is cleared. Whether to enable alarm notifications for one-click monitoring is determined by the outer-layer parameter **ok_notifications**. The inner-layer parameter is deprecated. **Constraints** N/A **Range** A maximum of 10 notification groups or topic subscriptions can be configured. **Default Value** N/A
notification_begin_time	No	String	**Definition** Time when alarm notifications were enabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A
notification_end_time	No	String	**Definition** Time when alarm notifications were disabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notification_manner	No	String	**Definition** Notification method. The value can be **NOTIFICATION_POLICY** (notification policies), **NOTIFICATION_GROUP** (notification groups), or **TOPIC_SUBSCRIPTION** (topic subscriptions). Whether to enable alarm notifications for one-click monitoring is determined by the outer-layer parameter **notification_manner**. The inner-layer parameter is deprecated. **Constraints** N/A **Range** The value can be **NOTIFICATION_POLICY**, **NOTIFICATION_GROUP**, or **TOPIC_SUBSCRIPTION**. It allows 1 to 64 characters. **Default Value** N/A
notification_policy_ids	No	Array of strings	**Definition** Associated notification policy IDs. Whether to enable alarm notifications for one-click monitoring is determined by the outer-layer parameter **notification_policy_ids**. The inner-layer parameter is deprecated. **Constraints** N/A **Range** ^([a-z]|[A-Z]|[0-9]|-){2,64}$ The value contains 2 to 64 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-269 Policy

Parameter	Mandatory	Type	Description
metric_name	Yes	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
period	Yes	Integer	**Definition** Metric period, in seconds. For details about the original metric period for each cloud service, see **Supported Services**. **Constraints** N/A **Range** The value can be: • **0**: The alarm is triggered immediately for event scenarios only. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
filter	Yes	String	**Definition** Aggregation method. **Constraints** N/A **Range** **average**, **variance**, **min**, **max**, or **sum** **Default Value** N/A
comparison_operator	Yes	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
value	No	Number	**Definition** Alarm threshold. For specific thresholds, see the value range of each metric in the appendix. **Constraints** If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range** **-1.7976931348623157e+108** to **1.7976931348623157e+108** **Default Value** N/A
hierarchical_value	No	**HierarchicalValue** object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	No	String	**Definition** Data unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
count	Yes	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
suppress_duration	No	Integer	**Definition** Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Constraints** N/A **Range** The value can be: • **0**: An alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
			• **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met. **Default Value** N/A
level	No	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be **1** (critical), ** 2** (major), **3** (minor), or **4** (informational). **Default Value** 2
namespace	No	String	**Definition** **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 0 to 32 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dimension_name	No	String	**Definition** Metric dimension name. For details, see **Service Dimension Names**. **namespace** and **dimension_name** need to be specified for cloud product-level rules. This is to specify the resources that the policies apply to. **Constraints** N/A **Range** A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios and **instance_id,disk** for multi-dimension scenarios **Default Value** N/A
enabled	No	Boolean	**Definition** Whether the alarm policy is enabled. The value can be **true** (enabled) or **false** (disabled). **Constraints** N/A **Range** N/A **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-270 HierarchicalValue

Parameter	Mandatory	Type	Description
critical	No	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
major	No	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
minor	No	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	No	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-271 Dimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of the resource. For example, the dimension of an ECS is **instance_id**. For details about the metric dimension name of each service resource, see **Service Dimension Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	No	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Response Parameters

Status code: 201

Table 6-272 Response body parameters

Parameter	Type	Description
one_click_alarm_id	String	**Definition** One-click monitoring rule ID. **Constraints** N/A **Range** The value allows only letters and digits and can contain 1 to 64 characters. **Default Value** N/A

Status code: 400

Table 6-273 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-274 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-275 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-276 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
/v2/{project_id}/one-click-alarms

{
  "one_click_alarm_id" : "o123456789012345678901 2",
  "dimension_names" : {
    "metric" : [ "disk", "instance_id" ],
    "event" : [ "resource_id" ]
  },
  "notification_enabled" : true,
  "alarm_notifications" : [ {
    "type" : "notification",
    "notification_list" : [ "urn:smn:123" ]
  } ],
  "ok_notifications" : [ {
    "type" : "notification",
    "notification_list" : [ "urn:smn:123" ]
  } ],
  "notification_begin_time" : "00:00",
  "notification_end_time" : "23:59",
  "notification_manner" : "NOTIFICATION_POLICY",
  "notification_policy_ids" : [ "np15563156337845e8A2Wv63" ]
}
```

Example Responses

Status code: 201

Created

```
{
  "one_click_alarm_id" : "o123456789012345678901 2"
}
```

Status Codes

Status Code	Description
201	Created
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.10.2 Querying Services and Resources That Support One-Click Monitoring

Function

This API is used to query services and resources that support one-click monitoring.

URI

GET /v2/{project_id}/one-click-alarms

Table 6-277 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-278 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-279 Response body parameters

Parameter	Type	Description
one_click_alarms	Array of **one_click_alarms** objects	Services and resources that support one-click monitoring.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-280 one_click_alarms

Parameter	Type	Description
one_click_alarm_id	String	**Definition** One-click monitoring rule ID. **Constraints** N/A **Range** The value allows only letters and digits and can contain 1 to 64 characters. **Default Value** N/A
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
description	String	Supplementary information about one-click monitoring. The description can contain 0 to 256 characters and is left blank by default.
enabled	Boolean	Whether to enable one-click alarm reporting. true: enabled; false: disabled.

Status code: 400

Table 6-281 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-282 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-283 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-284 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Responses

Status code: 200

OK

```
{
  "one_click_alarms" : [ {
    "one_click_alarm_id" : "o1234567890123456789012",
    "namespace" : "SYS.ECS",
    "description" : "hello world",
    "enabled" : true
  } ]
}
```

Status Codes

Status Code	Description
200	OK
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.10.3 Querying Alarm Rules of a Service in One-Click Monitoring

Function

This API is used to query alarm rules of a service in one-click monitoring.

URI

GET /v2/{project_id}/one-click-alarms/{one_click_alarm_id}/alarms

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-285 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
one_click_alarm_id	Yes	String	One-click monitoring ID for a service.

Request Parameters

Table 6-286 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-287 Response body parameters

Parameter	Type	Description
alarms	Array of **alarms** objects	Alarm rule list.

Table 6-288 alarms

Parameter	Type	Description
alarm_id	String	**Definition** Alarm rule ID. **Constraints** N/A **Range** The value starts with **al** and is followed by 22 characters of letters, digits, or a combination of both. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
name	String	**Definition** Alarm name. **Constraints** N/A **Range** The value allows 1 to 128 characters and can contain digits, letters, underscores (_), and hyphens (-). **Default Value** N/A
description	String	**Definition** Alarm description. **Constraints** N/A **Range** [0,256] **Default Value** N/A
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
policies	Array of **OneClickAlarmPolicy** objects	Alarm policies.
resources	Array of **ResourcesInListResp** objects	Resource list. Associated resources can be obtained by calling the API for querying resources in an alarm rule.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
type	String	**Definition** Alarm rule type. **Constraints** N/A **Range** The value can be: • **ALL_INSTANCE**: alarms for all resources • **RESOURCE_GROUP**: alarms for resource groups • **MULTI_INSTANCE**: alarms for specified resources • **EVENT.SYS**: system event alarms • **EVENT.CUSTOM**: custom event alarms • **DNSHealthCheck**: health check alarms **Default Value** N/A
enabled	Boolean	**Definition** Whether to enable the alarm rule. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true
notification_enabled	Boolean	**Definition** Whether to enable alarm notifications. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
alarm_notifications	Array of **Notification** objects	**Definition**: Notification group or topic subscription for alarm notifications. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.
ok_notifications	Array of **Notification** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.
notification_begin_time	String	**Definition** Time when alarm notifications were enabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A
notification_end_time	String	**Definition** Time when alarm notifications were disabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
effective_timezone	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A
notification_manner	String	Notification mode, which can be **NOTIFICATION_GROUP** (notification groups), **TOPIC_SUBSCRIPTION** (topic subscriptions), or **NOTIFICATION_POLICY** (notification policies).
notification_policy_ids	Array of strings	Associated notification policy IDs.

Table 6-289 OneClickAlarmPolicy

Parameter	Type	Description
alarm_policy_id	String	Alarm policy ID.
metric_name	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
period	Integer	**Definition** Interval (seconds) for checking whether the alarm rule conditions are met. **Constraints** N/A **Range** The value can be: • **0**: default value. This value can be used for event alarms. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A
filter	String	**Definition** Aggregation method. **Constraints** N/A **Range** **average**, **variance**, **min**, **max**, or **sum** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
comparison_operator	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A
value	Number	**Definition** Alarm threshold. For specific thresholds, see the value range of each metric in the appendix. **Constraints** If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range** **-1.7976931348623157e+108** to **1.7976931348623157e+108** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
hierarchical_value	**HierarchicalValue** object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	String	**Definition** Data unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A
count	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
suppress_duration	Integer	**Definition** Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Constraints** N/A **Range** The value can be: • **0**: A metric alarm is generated only once. An event alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. • **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met. **Default Value**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
		N/A
level	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be **1** (critical), ** 2** (major), **3** (minor), or **4** (informational). **Default Value** 2
enabled	Boolean	Whether to enable one-click alarm reporting. true: enabled; false: disabled.
selected_unit	String	**Definition** The metric unit you selected. It is used for subsequent metric data display and calculation. **Constraints** N/A **Range** 0 to 64 characters **Default Value** N/A

Table 6-290 HierarchicalValue

Parameter	Type	Description
critical	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
major	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
minor	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

Table 6-291 ResourcesInListResp

Parameter	Type	Description
resource_group_id	String	**Definition** Resource group ID. This parameter is available when the monitoring scope is **Resource groups**. **Range** The value starts with **rg** and is followed by 22 characters of letters, digits, or a combination of both.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
resource_group_name	String	**Definition** Resource group name. This parameter is available when the monitoring scope is **Resource groups**. **Range** 1 to 128 characters
dimensions	Array of **MetricDimensionResp** objects	**Definition** Dimension information.

Table 6-292 MetricDimensionResp

Parameter	Type	Description
name	String	**Definition** Metric dimension name. **Range** The value must start with a letter and can contain 1 to 32 characters.
value	String	**Definition** Metric dimension value. **Range** [0,256]

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-293 Notification

Parameter	Type	Description
type	String	**Definition** Notification type. **Constraints** N/A **Range** The value can be: • **notification**: SMN notifications • **contact**: account contacts • **contactGroup**: notification groups • autoscaling: AS notifications. This value is used only for AS. • **groupwatch**: deprecated • **ecsRecovery**: deprecated • **iecAction**: deprecated **Default Value** N/A
notification_list	Array of strings	**Definition** Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics". **Constraints** If **type** is set to **notification**, the value of **notification_list** cannot be left blank. If **type** is set to **autoscaling**, the value of **notification_list** must be left blank. If **notification_enabled** is set to **true**, you must specify either **alarm_notifications** or **ok_notifications**. If both **alarm_notifications** and **ok_notifications** are specified, their **notification_list** values must be the same. A maximum of 20 recipients are allowed.

Status code: 400

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-294 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-295 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-296 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-297 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Requests

None

Example Responses

Status code: 200

OK


```
{
  "alarms" : [ {
    "alarm_id" : "al123232232341232132",
    "name" : "alarm1",
    "description" : "hello world",
    "namespace" : "SYS.ECS",
    "policies" : [ {
      "alarm_policy_id" : "alxdxxxdsw12321321",
      "metric_name" : "cpu_util",
      "period" : 0,
      "filter" : "max",
      "comparison_operator" : "",
      "value" : 1.7976931348623156E108,
      "unit" : "%",
      "count" : 100,
      "suppress_duration" : 0,
      "level" : 2,
      "enabled" : true
    } ],
    "resources" : [ {
      "dimensions" : [ {
        "name" : "string",
        "value" : "string"
      } ]
    } ],
    "type" : "EVENT.SYS",
    "enabled" : true,
    "notification_enabled" : true,
    "alarm_notifications" : [ {
      "type" : "notification",
      "notification_list" : [ "urn:smn:123" ]
    } ],
    "ok_notifications" : [ {
      "type" : "notification",
      "notification_list" : [ "urn:smn:123" ]
    } ],
    "notification_begin_time" : "00:00",
    "notification_end_time" : "23:59",
    "notification_manner" : "NOTIFICATION_POLICY",
    "notification_policy_ids" : [ "np15563156337845e8A2Wv63" ]
  } ]
}
```


Status Codes

Status Code	Description
200	OK
400	Parameter verification failed.
401	Not authenticated.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Code	Description
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.10.4 Batch Enabling or Disabling Alarm Rules for One Service in One-Click Monitoring

Function

This API is used to batch enable or disable alarm rules for one service that has one-click monitoring enabled.

URI

PUT /v2/{project_id}/one-click-alarms/{one_click_alarm_id}/alarm-rules/action

Table 6-298 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
one_click_alarm_id	Yes	String	**Definition** One-click monitoring rule ID. **Constraints** N/A **Range** The value allows only letters and digits and can contain 1 to 64 characters. **Default Value** N/A

Request Parameters

Table 6-299 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-300 Request body parameters

Parameter	Mandatory	Type	Description
alarm_ids	Yes	Array of strings	**Definition** IDs of alarm rules to be enabled or disabled in batches. **Constraints** At least one and a maximum of 100 alarm rule IDs can be configured.
alarm_enabled	Yes	Boolean	**Definition** Whether to enable the alarm rule. **Constraints** N/A **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** true

Response Parameters

Status code: 200

Table 6-301 Response body parameters

Parameter	Type	Description
alarm_ids	Array of strings	**Definition** IDs of alarm rules that were enabled or disabled.

Status code: 400

Table 6-302 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-303 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-304 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-305 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-306 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "alarm_ids" : [ "al1232232232341232132" ],
  "alarm_enabled" : true
}
```

Example Responses

Status code: 200

Alarm rules enabled or disabled.

```
{
  "alarm_ids" : [ "al1232232232341232132" ]
}
```

Status Codes

Status Code	Description
200	Alarm rules enabled or disabled.
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.10.5 Batch Disabling One-Click Motoring

Function

This API is used to batch disable one-click monitoring.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

URI

POST /v2/{project_id}/one-click-alarms/batch-delete

Table 6-307 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 6-308 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-309 Request body parameters

Parameter	Mandatory	Type	Description
one_click_alarm_ids	Yes	Array of strings	**Definition** IDs of one-click monitoring rules to be deleted in batches. **Constraints** There can be 1 to 100 one-click monitoring rule IDs.

Response Parameters

Status code: 200

Table 6-310 Response body parameters

Parameter	Type	Description
one_click_alarm_ids	Array of strings	**Definition** One-click monitoring rule IDs that are deleted.

Status code: 400

Table 6-311 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-312 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-313 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-314 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Requests

```
{
  "one_click_alarm_ids" : [ "o1619578505263QkW3b66yo" ]
}
```

Example Responses

Status code: 200

IDs of services for which one-click monitoring was disabled.

```
{
  "one_click_alarm_ids" : [ "o1619578505263QkW3b66yo" ]
}
```

Status Codes

Status Code	Description
200	IDs of services for which one-click monitoring was disabled.
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.10.6 Batch Modifying Alarm Notifications in Alarm Rules for One Service with One-Click Monitoring Enabled

Function

This API is used to batch modify alarm notifications in alarm rules for one service that has one-click monitoring enabled.

URI

PUT /v2/{project_id}/one-click-alarms/{one_click_alarm_id}/notifications

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-315 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
one_click_alarm_id	Yes	String	**Definition** One-click monitoring ID for a service. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-316 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-317 Request body parameters

Parameter	Mandatory	Type	Description
notification_enabled	Yes	Boolean	**Definition** Whether to enable alarm notifications. **Constraints** If the value is **true**, other fields are mandatory. If the value is **false**, other fields are optional. **Range** A boolean value, which can be: • **true**: enable • **false**: disable **Default Value** N/A
alarm_notifications	No	Array of **Notification** objects	**Definition**: Notification group or topic subscription for alarm notifications. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.
ok_notifications	No	Array of **Notification** objects	**Definition**: Information about the notification group or topic subscription when the alarm is cleared. **Constraints**: You can configure 0 to 10 notification groups or topic subscriptions.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notification_begin_time	No	String	**Definition** Time when alarm notifications were enabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A
notification_end_time	No	String	**Definition** Time when alarm notifications were disabled. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain digits and colons (:). **Default Value** N/A
effective_timezone	No	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
notification_manner	No	String	**Definition** Notification method. **Constraints** N/A **Range** The value can be: • **NOTIFICATION_GROUP**: notification groups • **TOPIC_SUBSCRIPTION**: topic subscriptions • **NOTIFICATION_POLICY**: notification policies **Default Value** N/A
notification_policy_ids	No	Array of strings	**Definition** Associated notification policy IDs. **Constraints** The number of notification policy IDs ranges from 0 to 20.

Table 6-318 Notification

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Notification type. **Constraints** N/A **Range** The value can be: • **notification**: SMN notifications • **contact**: account contacts • **contactGroup**: notification groups • autoscaling: AS notifications. This value is used only for AS. • **groupwatch**: deprecated • **ecsRecovery**: deprecated • **iecAction**: deprecated **Default Value** N/A
notification_list	Yes	Array of strings	**Definition** Recipients to be notified of the alarm status changes. The value of **topicUrn** can be obtained from SMN. For details, see section "Querying Topics". **Constraints** If **type** is set to **notification**, the value of **notification_list** cannot be left blank. If **type** is set to **autoscaling**, the value of **notification_list** must be left blank. If **notification_enabled** is set to **true**, you must specify either **alarm_notifications** or **ok_notifications**. If both **alarm_notifications** and **ok_notifications** are specified, their **notification_list** values must be the same. A maximum of 20 recipients are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 204

No Content

Status code: 400

Table 6-319 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-320 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

Table 6-321 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-322 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-323 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "notification_enabled" : true,
  "alarm_notifications" : [ {
    "type" : "notification",
    "notification_list" : [ "urn:smn:123" ]
  } ],
  "ok_notifications" : [ {
    "type" : "notification",
    "notification_list" : [ "urn:smn:123" ]
  } ],
  "notification_begin_time" : "00:00",
  "notification_end_time" : "23:59",
  "notification_manner" : "NOTIFICATION_POLICY",
  "notification_policy_ids" : [ "np15563156337845e8A2Wv63" ]
}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	Parameter verification failed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Code	Description
401	Not authenticated.
403	Authentication failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.10.7 Batch Enabling or Disabling Alarm Rules for One Service with One-Click Monitoring Enabled

Function

This API is used to batch enable or disable alarm rules for one service with one-click monitoring enabled.

URI

PUT /v2/{project_id}/one-click-alarms/{one_click_alarm_id}/alarms/{alarm_id}/policies/action

Table 6-324 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
one_click_alarm_id	Yes	String	One-click monitoring ID for a service.
alarm_id	Yes	String	Alarm rule ID.

Request Parameters

Table 6-325 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-326 Request body parameters

Parameter	Mandatory	Type	Description
alarm_policy_ids	Yes	Array of strings	IDs of alarm policies to be enabled or disabled in batches in an alarm rule.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
enabled	Yes	Boolean	Whether to enable the alarm policy. true: enabled; false: disabled.

Response Parameters

Status code: 200

Table 6-327 Response body parameters

Parameter	Type	Description
alarm_policy_ids	Array of strings	IDs of alarm policies that were enabled or disabled in batches in an alarm rule.

Status code: 400

Table 6-328 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-329 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 403

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-330 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-331 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-332 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "alarm_policy_ids" : [ "alxdxxxdsw12321321" ],
  "enabled" : true
}
```

Example Responses

Status code: 200

Alarm rules enabled or disabled.

```
{
  "alarm_policy_ids" : [ "alxdxxxdsw12321321" ]
}
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Codes

Status Code	Description
200	Alarm rules enabled or disabled.
400	Parameter verification failed.
401	Not authenticated.
403	Authentication failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.11 Alarm Masking Rules

6.11.1 Creating Alarm Masking Rules in Batches

Function

This API is used to create alarm masking rules in batches.

URI

PUT /v2/{project_id}/notification-masks

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-333 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 6-334 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-335 Request body parameters

Parameter	Mandatory	Type	Description
mask_name	No	String	**Definition** Masking rule name. **Constraints** N/A **Range** The value allows 1 to 64 characters. It can only contain letters, digits, hyphens (-), and underscores (_). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
relation_type	Yes	String	**Definition** Method for masking alarm notifications or calculation. **Constraints** N/A **Range** The value allows 1 to 32 characters and can only be: • **ALARM_RULE**: masking alarm notifications by alarm rule • **RESOURCE**: masking alarm notifications by resource • **RESOURCE_POLICY_NOTIFICATION**: masking alarm notifications by resource or alarm policy • **RESOURCE_POLICY_ALARM**: masking alarm calculation by resource or alarm policy **Default Value** N/A
relation_ids	Yes	Array of strings	Alarm rule or alarm policy ID. If you set **relation_type** to **ALARM_RULE**, set this parameter to the ID of the masked alarm rule. If you set **relation_type** to **RESOURCE_POLICY_NOTIFICATION** or **RESOURCE_POLICY_ALARM**, set this parameter to the ID of the masked alarm policy.
resources	No	Array of **Resource** objects	Associated resource. It is required when you set **relation_type** to **RESOURCE**, **RESOURCE_POLICY_NOTIFICATION**, or **RESOURCE_POLICY_ALARM**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_names	No	Array of strings	Name of the associated metric. This parameter is optional when **relation_type** is set to **RESOURCE**. If this parameter is left blank, the masking rule will be applied to all metrics of the resource.
product_metrics	No	Array of **ProductMetric** objects	Metric information when the masking rule is applied by cloud product.
resource_level	No	String	**dimension** indicates the sub-dimension, and **product** indicates the cloud product.
product_name	No	String	Cloud product name specified when **Cloud product** is selected for **Resource Level**.
mask_type	Yes	String	**Definition** Masking type. **Constraints** N/A **Range** The value can be: • **START_END_TIME**: Alarms are masked by start time and end time. • **FOREVER_TIME**: Alarms are masked permanently. • **CYCLE_TIME**: Alarms are masked by period. **Default Value** N/A
start_date	No	String	**Definition** Masking start date. **Constraints** N/A **Range** The value contains 10 characters and is in the yyyy-MM-dd format. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
start_time	No	String	**Definition** Masking start time. **Constraints** N/A **Range** The value contains eight characters in the HH:mm:ss format. **Default Value** N/A
end_date	No	String	**Definition** Masking end date. **Constraints** N/A **Range** The value contains 10 characters and is in the yyyy-MM-dd format. **Default Value** N/A
end_time	No	String	**Definition** Masking end time. **Constraints** N/A **Range** The value contains eight characters in the HH:mm:ss format. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
effective_timezone	No	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A

Table 6-336 Resource

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimensions	Yes	Array of **ResourceDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-337 ResourceDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service Metric Dimensions**. **Constraints** N/A **Range** The value starts with a letter and allows 1 to 32 characters. It can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-338 ProductMetric

Parameter	Mandatory	Type	Description
dimension_name	Yes	String	**Definition** Metric dimensions when the masking rule is applied by cloud product. **Constraints** N/A **Range** The value contains 0 to 128 characters. Multiple dimensions are separated by commas (,). **Default Value** N/A
metric_name	Yes	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A

Response Parameters

Status code: 201

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-339 Response body parameters

Parameter	Type	Description
relation_ids	Array of strings	IDs of associated alarm rules or policies that were successfully created.
notification_mask_id	String	Masking rule ID.

Status code: 400

Table 6-340 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-341 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "mask_name" : "mn_test",
  "relation_type" : "ALARM_RULE",
  "relation_ids" : [ "al123232232341232132" ],
  "resources" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "4270ff17-aba3-4138-89fa-820594c39755"
    } ]
  } ],
  "mask_type" : "START_END_TIME",
  "start_date" : "2022-11-09 16:37:24",
  "start_time" : "HH:mm:ss",
  "end_date" : "2022-12-09 16:37:24",
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
  "end_time" : "HH:mm:ss"
}
```

Example Responses

Status code: 201

Notification masking rules created.

```
{
  "relation_ids" : [ "al1232322323412321 32" ],
  "notification_mask_id" : "nm1232322323412321 32"
}
```

Status Codes

Status Code	Description
201	Notification masking rules created.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.11.2 Modifying the Masking Time of Alarm Masking Rules in Batches

Function

Modify the masking time of alarm masking rules in batches.

URI

POST /v2/{project_id}/notification-masks/batch-update

Table 6-342 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 6-343 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-344 Request body parameters

Parameter	Mandatory	Type	Description
notification_mask_ids	Yes	Array of strings	Association ID.
mask_type	Yes	String	**Definition** Masking type. **Constraints** N/A **Range** The value can be: • **START_END_TIME**: Alarms are masked by start time and end time. • **FOREVER_TIME**: Alarms are masked permanently. • **CYCLE_TIME**: Alarms are masked by period. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
start_date	No	String	**Definition** Masking start date. **Constraints** N/A **Range** The value contains 10 characters and is in the yyyy-MM-dd format. **Default Value** N/A
start_time	No	String	**Definition** Masking start time. **Constraints** N/A **Range** The value contains eight characters in the HH:mm:ss format. **Default Value** N/A
end_date	No	String	**Definition** Masking end date. **Constraints** N/A **Range** The value contains 10 characters and is in the yyyy-MM-dd format. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
end_time	No	String	**Definition** Masking end time. **Constraints** N/A **Range** The value contains eight characters in the HH:mm:ss format. **Default Value** N/A
effective_timezone	No	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A

Response Parameters

Status code: 204

Masking time modified.

Status code: 400

Table 6-345 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-346 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "notification_mask_ids" : [ "nm1232322323412321 32" ],
  "mask_type" : "START_END_TIME",
  "start_date" : "2022-11-09 16:37:24",
  "start_time" : "HH:mm:ss",
  "end_date" : "2022-12-09 16:37:24",
  "end_time" : "HH:mm:ss"
}
```

Example Responses

None

Status Codes

Status Code	Description
204	Masking time modified.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.11.3 Modifying an Alarm Masking Rule

Function

This API is used to modify an alarm masking rule.

URI

PUT /v2/{project_id}/notification-masks/{notification_mask_id}

Table 6-347 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
notification_mask_id	Yes	String	**Definition** Masking rule ID. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain letters and digits. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-348 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-349 Request body parameters

Parameter	Mandatory	Type	Description
mask_name	Yes	String	**Definition** Masking rule name. **Constraints** N/A **Range** The value allows 1 to 64 characters. It can only contain letters, digits, hyphens (-), and underscores (_). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
relation_ids	No	Array of strings	**Definition** Relation ID. **Constraints** The array length ranges from 1 to 100. If you set **relation_type** to **ALARM_RULE**, set this parameter to the ID of the masked alarm rule. If you set **relation_type** to **RESOURCE_POLICY_NOTIFICATION** or **RESOURCE_POLICY_ALARM**, set this parameter to the ID of the masked alarm policy.
relation_type	No	String	**Definition** Method for masking alarm notifications or calculation. **Constraints** N/A **Range** The value allows 1 to 32 characters and can only be: • **ALARM_RULE**: masking alarm notifications by alarm rule • **RESOURCE**: masking alarm notifications by resource • **RESOURCE_POLICY_NOTIFICATION**: masking alarm notifications by resource or alarm policy • **RESOURCE_POLICY_ALARM**: masking alarm calculation by resource or alarm policy **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_names	No	Array of strings	**Definition** List of associated metrics. **Constraints** This parameter is optional when **relation_type** is set to **RESOURCE**. If this parameter is left blank, the masking rule will be applied to all metrics of the resource. The number of metrics ranges from 0 to 50.
product_metrics	No	Array of **ProductMetric** objects	**Definition** Metric information when the masking rule is applied by cloud product. **Constraints**: The number of metrics ranges from 0 to 50.
resource_level	No	String	**Definition** Resource type. **Constraints** **Range** The value can be: • **dimension**: specific dimension **product**: cloud product **Default Value** N/A
product_name	No	String	**Definition** Cloud product name specified when **Resource Level** is set to **Cloud product**. **Constraints** N/A **Range** The value consists of 0 to 128 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
resources	Yes	Array of **Resource** objects	**Definition** Associated resources. **Constraints** The array length ranges from 1 to 100.
mask_type	Yes	String	**Definition** Masking type. **Constraints** N/A **Range** The value can be: • **START_END_TIME**: Alarms are masked by start time and end time. • **FOREVER_TIME**: Alarms are masked permanently. • **CYCLE_TIME**: Alarms are masked by period. **Default Value** N/A
start_date	No	String	**Definition** Masking start date. **Constraints** N/A **Range** The value contains 10 characters and is in the yyyy-MM-dd format. **Default Value** N/A
start_time	No	String	**Definition** Masking start time. **Constraints** N/A **Range** The value contains eight characters in the HH:mm:ss format. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
end_date	No	String	**Definition** Masking end date. **Constraints** N/A **Range** The value contains 10 characters and is in the yyyy-MM-dd format. **Default Value** N/A
end_time	No	String	**Definition** Masking end time. **Constraints** N/A **Range** The value contains eight characters in the HH:mm:ss format. **Default Value** N/A
effective_timezone	No	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-350 ProductMetric

Parameter	Mandatory	Type	Description
dimension_name	Yes	String	**Definition** Metric dimensions when the masking rule is applied by cloud product. **Constraints** N/A **Range** The value contains 0 to 128 characters. Multiple dimensions are separated by commas (,). **Default Value** N/A
metric_name	Yes	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-351 Resource

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimensions	Yes	Array of **ResourceDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-352 ResourceDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service Metric Dimensions**. **Constraints** N/A **Range** The value starts with a letter and allows 1 to 32 characters. It can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Response Parameters

Status code: 204

No Content

Status code: 400

Table 6-353 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-354 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "mask_name" : "mn_test",
  "relation_ids" : [ "al123232232341232132" ],
  "relation_type" : "ALARM_RULE",
  "resources" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "4270ff17-aba3-4138-89fa-820594c39755"
    } ]
  } ],
  "mask_type" : "START_END_TIME",
  "start_date" : "2022-11-09 16:37:24",
  "start_time" : "HH:mm:ss",
  "end_date" : "2022-12-09 16:37:24",
  "end_time" : "HH:mm:ss"
}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Status Code	Description
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.11.4 Deleting Alarm Masking Rules in Batches

Function

This API is used to delete alarm masking rules in batches.

URI

POST /v2/{project_id}/notification-masks/batch-delete

Table 6-355 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 6-356 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-357 Request body parameters

Parameter	Mandatory	Type	Description
notification_mask_ids	Yes	Array of strings	Masking rule ID.

Response Parameters

Status code: 200

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-358 Response body parameters

Parameter	Type	Description
notification_mask_ids	Array of strings	ID of a masking rule that was successfully deleted.

Status code: 400

Table 6-359 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-360 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-361 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Requests

```
{
  "notification_mask_ids" : [ "nm1232322323412321 32" ]
}
```

Example Responses

Status code: 200

Notification masking rules deleted.

```
{
  "notification_mask_ids" : [ "nm1232322323412321 32" ]
}
```

Status Codes

Status Code	Description
200	Notification masking rules deleted.
400	Parameter verification failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

6.11.5 Querying Alarm Masking Rules

Function

This API is used to query notification masking rules of a specified type in batches. Currently, a maximum of 100 notification masking rules can be queried in batches.

URI

POST /v2/{project_id}/notification-masks/batch-query

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-362 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Table 6-363 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Pagination offset.
limit	No	Integer	Number of records on each page.
sort_key	No	String	Sorting keyword, which is used together with **sort_dir**. The value can be **create_time** or **update_time**. **create_time** indicates sorting by creation time, and **update_time** indicates sorting by modification time.
sort_dir	No	String	Sorting order, which is used together with **sort_key**. **DESC** indicates the descending order, and **ASC** indicates the ascending order.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-364 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-365 Request body parameters

Parameter	Mandatory	Type	Description
relation_type	Yes	String	Method for masking alarm notifications or calculation. **ALARM_RULE**: masking alarm notifications by alarm rule. **RESOURCE**: masking alarm notifications by resource. **RESOURCE_POLICY_NOTIFICATION**: masking alarm notifications by resource or alarm policy. **RESOURCE_POLICY_ALARM**: masking alarm calculation by resource or alarm policy. **DEFAULT**: **RESOURCE** and **RESOURCE_POLICY_NOTIFICATION** (used only for querying alarm masking rules)
relation_ids	Yes	Array of strings	Associated ID (alarm rule ID).
metric_name	No	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A
resource_level	No	String	**dimension** indicates the sub-dimension, and **product** indicates the cloud product.
mask_id	No	String	(Optional) Masking rule ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
mask_name	No	String	(Optional) Masking rule name. The value can contain up to 64 characters, including only letters, digits, hyphens (-), and underscores (_).
mask_status	No	String	Masking status. This parameter is optional. **MASK_EFFECTIVE**: The masking rule is in effect. **MASK_INEFFECTIVE**: The masking rule is not in effect.
resource_id	No	String	(Optional) Resource dimension value. You can specify one or more resource IDs from one dimension.
namespace	No	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimensions	No	Array of **ResourceDimension** objects	Resource dimension information.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-366 ResourceDimension

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition** Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service Metric Dimensions**. **Constraints** N/A **Range** The value starts with a letter and allows 1 to 32 characters. It can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	Yes	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Response Parameters

Status code: 200

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-367 Response body parameters

Parameter	Type	Description
notification_masks	Array of **notification_masks** objects	List of alarm notification masking rules.
count	Integer	Total number of alarm notification masking rules.

Table 6-368 notification_masks

Parameter	Type	Description
notification_mask_id	String	Masking rule ID.
mask_name	String	**Definition** Masking rule name. **Constraints** N/A **Range** The value allows 1 to 64 characters. It can only contain letters, digits, hyphens (-), and underscores (_). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
relation_type	String	**Definition** Method for masking alarm notifications or calculation. **Constraints** N/A **Range** The value allows 1 to 32 characters and can only be: • **ALARM_RULE**: masking alarm notifications by alarm rule • **RESOURCE**: masking alarm notifications by resource • **RESOURCE_POLICY_NOTIFICATION**: masking alarm notifications by resource or alarm policy • **RESOURCE_POLICY_ALARM**: masking alarm calculation by resource or alarm policy **Default Value** N/A
relation_id	String	**Definition** Association ID. **Constraints** N/A **Range** The value can be an alarm rule ID or alarm policy ID. It allows 1 to 64 characters and can only contain letters, digits, and hyphens (-). **Default Value** N/A
resource_type	String	Masked resource type. The value can be **ALL_INSTANCE (all resources) or ** MULTI_INSTANCE** (multi-instance resources).
metric_names	Array of strings	Name of the associated metric. This parameter is available when **relation_type** is set to **RESOURCE**.
product_metrics	Array of **ProductMetric** objects	Metric information when the masking rule is applied by cloud product.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
resource_level	String	**dimension** indicates the sub-dimension, and **product** indicates the cloud product.
product_name	String	Cloud product name specified when **Cloud product** is selected for **Resource Level**.
resources	Array of **ResourceCategory** objects	Associated resource type. This parameter is available when **relation_type** is set to **RESOURCE**. You only need to query the namespace and dimension name of the resource.
mask_status	String	Masking status. **UN_MASKED**: Alarm notifications are not masked. **MASK_EFFECTIVE**: Masking rules are in effect. **MASK_INEFFECTIVE**: Masking rules are not in effect.
mask_type	String	**Definition** Masking type. **Constraints** N/A **Range** The value can be: • **START_END_TIME**: Alarms are masked by start time and end time. • **FOREVER_TIME**: Alarms are masked permanently. • **CYCLE_TIME**: Alarms are masked by period. **Default Value** N/A
create_time	Integer	Time the alarm masking is created. The value is a UNIX timestamp and the unit is ms.
update_time	Integer	Time the alarm masking is updated. The value is a UNIX timestamp and the unit is ms.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
start_date	String	**Definition** Masking start date. **Constraints** N/A **Range** The value contains 10 characters and is in the yyyy-MM-dd format. **Default Value** N/A
start_time	String	**Definition** Masking start time. **Constraints** N/A **Range** The value contains eight characters in the HH:mm:ss format. **Default Value** N/A
end_date	String	**Definition** Masking end date. **Constraints** N/A **Range** The value contains 10 characters and is in the yyyy-MM-dd format. **Default Value** N/A
end_time	String	**Definition** Masking end time. **Constraints** N/A **Range** The value contains eight characters in the HH:mm:ss format. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
effective_timezone	String	**Definition** Time zone, for example, **GMT-08:00**, **GMT+08:00**, or **GMT+0:00**. **Constraints** N/A **Range** 1 to 16 characters **Default Value** N/A
policies	Array of **PoliciesInListResp** objects	Alarm policy list.

Table 6-369 ProductMetric

Parameter	Type	Description
dimension_name	String	**Definition** Metric dimensions when the masking rule is applied by cloud product. **Constraints** N/A **Range** The value contains 0 to 128 characters. Multiple dimensions are separated by commas (,). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_name	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A

Table 6-370 ResourceCategory

Parameter	Type	Description
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Service Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimension_names	Array of strings	Resource dimension information. Multiple dimensions are sorted in alphabetical order and separated with commas (,).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-371 PoliciesInListResp

Parameter	Type	Description
alarm_policy_id	String	Alarm policy ID.
metric_name	String	**Definition** Metric name of a resource. For details about the metrics of each service, see **Service Metric Names**. **Constraints** N/A **Range** The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). It allows 1 to 96 characters. For example, the ECS metric **cpu_util** indicates the CPU usage of an ECS. The DDS metric **mongo001_command_ps** indicates the command execution frequency. **Default Value** N/A
extra_info	**MetricExtraInfo** object	**Definition** Additional information about the alarm policy. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
period	Integer	**Definition** Interval (seconds) for checking whether the alarm rule conditions are met. **Constraints** N/A **Range** The value can be: • **0**: default value. This value can be used for event alarms. • **1**: original metric period. For example, if the original period of an RDS metric is 60s, the metric data is collected and calculated every 60s. • **300**: The metric data is collected and calculated every 5 minutes. • **1200**: The metric data is collected and calculated every 20 minutes. • **3600**: The metric data is collected and calculated every hour. • **14400**: The metric data is collected and calculated every 4 hours. • **86400**: The metric data is collected and calculated every day. **Default Value** N/A
filter	String	**Definition** Aggregation method. **Constraints** N/A **Range** **average**, **variance**, **min**, **max**, or **sum** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
comparison_operator	String	**Definition** Threshold symbol. **Constraints** The threshold symbols for metric alarms are >, >=, <, <=, =, !=, cycle_decrease, cycle_increase, and cycle_wave. The threshold symbols for event alarms are >, >=, <, <=, =, and !=. **Range** The value can be **>**, **<**, **>=**, **<=**, **=**, **!=**, **cycle_decrease**, **cycle_increase**, or **cycle_wave**. **cycle_decrease** indicates the decrease relative to the last period; **cycle_increase** indicates the increase relative to the last period; **cycle_wave** indicates the increase or decrease relative to the last period. **Default Value** N/A
value	Number	**Definition** Alarm threshold. For specific thresholds, see the value range of each metric in the appendix. **Constraints** If there is only one threshold, **value** and **alarm_level** are used in pairs. If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. **Range** **-1.7976931348623157e+108** to **1.7976931348623157e+108** **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
hierarchical_value	**HierarchicalValue** object	**Definition** Multi-level alarm threshold. **Constraints** If there are both **hierarchical_value** and **value**, **hierarchical_value** is used. When you create or modify an alarm rule, you can set only one threshold in the following scenarios: 1. The alarm type is **Metric** and the alarm policy is **Trigger an alarm when all policies are met**. 2. The alarm type is **Event**.
unit	String	**Definition** Data unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A
count	Integer	**Definition** Number of times that the alarm triggering conditions are met. **Constraints** N/A **Range** For event alarms, the value ranges from **1** to **180**. For metric and website alarms, the value can be **1**, **2**, **3**, **4**, **5**, **10**, **15**, **30**, **60**, **90**, **120**, or **180**. **Default Value** N/A
type	String	Alarm policy type. This API has been deprecated.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
suppress_duration	Integer	**Definition** Alarm suppression duration, in seconds. This parameter corresponds to the last field in the alarm policy when you create an alarm rule. This field is used to mitigate frequent alarm occurrences. **Constraints** N/A **Range** The value can be: • **0**: A metric alarm is generated only once. An event alarm is not suppressed in the immediate triggering scenario, and is generated only once in the accumulated triggering scenario. • **300**: An alarm is generated every 5 minutes once the alarm triggering condition is met. • **600**: An alarm is generated every 10 minutes once the alarm triggering condition is met. • **900**: An alarm is generated every 15 minutes once the alarm triggering condition is met. • **1800**: An alarm is generated every 30 minutes once the alarm triggering condition is met. • **3600**: An alarm is generated every 60 minutes once the alarm triggering condition is met. • **10800**: An alarm is generated every 3 hours once the alarm triggering condition is met. • **21600**: An alarm is generated every 6 hours once the alarm triggering condition is met. • **43200**: An alarm is generated every 12 hours once the alarm triggering condition is met. • **86400**: An alarm is generated once every day once the alarm triggering condition is met. **Default Value**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
		N/A
alarm_level	Integer	**Definition** Alarm severity. **Constraints** N/A **Range** The value can be: • **1**: critical • **2**: major • **3**: minor • **4**: Informational **Default Value** N/A
selected_unit	String	**Definition** The metric unit you selected. It is used for subsequent metric data display and calculation. **Constraints** N/A **Range** 0 to 64 characters **Default Value** N/A

Table 6-372 MetricExtraInfo

Parameter	Type	Description
origin_metric_name	String	**Definition** Original metric name. **Constraints** N/A **Range** 0 to 4,096 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_prefix	String	**Definition** Metric name prefix. **Constraints** N/A **Range** 0 to 4,096 characters **Default Value** N/A
custom_proc_name	String	**Definition** Name of a process. **Constraints** N/A **Range** [0,250] **Default Value** N/A
metric_type	String	**Definition** Metric type. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

Table 6-373 HierarchicalValue

Parameter	Type	Description
critical	Double	**Definition** Threshold for critical alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
major	Double	**Definition** Threshold for major alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
minor	Double	**Definition** Threshold for minor alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A
info	Double	**Definition** Threshold for informational alarms. **Constraints** N/A **Range** [-1.7976931348623157e+108, 1.7976931348623157e+108] **Default Value** N/A

Status code: 400

Table 6-374 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 500

Table 6-375 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "relation_type" : "DEFAULT",
  "relation_ids" : [ "al123232232341232132" ],
  "mask_id" : "nm1689737291469aj38xNVLK",
  "mask_name" : "mn_test",
  "mask_status" : "MASK_EFFECTIVE",
  "resource_id" : "dse23xw43",
  "namespace" : "SYS.ECS",
  "dimensions" : [ {
    "name" : "instance_id",
    "value" : "4270ff17-aba3-4138-89fa-820594c39755"
  } ]
}
```

Example Responses

Status code: 200

Notification masking rules queried.

```
{
  "notification_masks" : [ {
    "notification_mask_id" : "nm123232232341232132",
    "mask_name" : "mn_test",
    "relation_type" : "ALARM_RULE",
    "relation_id" : "al123232232341232132",
    "resource_type" : "MULTI_INSTANCE",
    "resources" : [ {
      "namespace" : "SYS.ECS",
      "dimension_names" : [ "disk_utils,instance_id" ]
    } ],
    "mask_status" : "UN_MASKED",
    "mask_type" : "START_END_TIME",
    "start_date" : "2022-11-09 16:37:24",
    "start_time" : "HH:mm:ss",
    "end_date" : "2022-12-09 16:37:24",
    "end_time" : "HH:mm:ss",
    "policies" : [ {
      "alarm_policy_id" : "0f921f55-89b1-4534-ae54-7b40b597b5a6",
      "metric_name" : "cpu_util",
      "extra_info" : {
        "origin_metric_name" : "disk_usedPercent",
        "metric_prefix" : "SlAsh_",
        "custom_proc_name" : "proc_zombie_count1",
        "metric_type" : "string"
      },
      "period" : 300,
      "filter" : "average",
```

```
    "comparison_operator" : ">",
    "value" : 0,
    "unit" : "%",
    "count" : 3,
    "type" : "string",
    "suppress_duration" : 300,
    "alarm_level" : 2
   } ]
 } ],
 "count" : 100
}
```

Status Codes

Status Code	Description
200	Notification masking rules queried.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.11.6 Querying Resources for Which an Alarm Masking Rule Is Applied

Function

This API is used to query resources for which an alarm masking rule is applied.

URI

GET /v2/{project_id}/notification-masks/{notification_mask_id}/resources

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-376 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
notification_mask_id	Yes	String	**Definition** Masking rule ID. **Constraints** N/A **Range** The value allows 1 to 64 characters and can only contain letters and digits. **Default Value** N/A

Table 6-377 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Pagination offset.
limit	No	Integer	Number of records on each page.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-378 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-379 Response body parameters

Parameter	Type	Description
resources	Array of **Resource** objects	List of resources for which an alarm masking rule is applied.
count	Integer	Total number of resources.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-380 Resource

Parameter	Type	Description
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimensions	Array of **ResourceDimension** objects	**Definition** Resource dimension information. **Constraints** A maximum of four dimensions are allowed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-381 ResourceDimension

Parameter	Type	Description
name	String	**Definition** Dimension of a resource. For example, the dimension of an ECS can be **instance_id**. A maximum of four dimensions are supported. For the metric dimension of each resource, see **Service Metric Dimensions**. **Constraints** N/A **Range** The value starts with a letter and allows 1 to 32 characters. It can contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
value	String	**Definition** Resource dimension value, which is an instance ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints** N/A **Range** 1 to 256 characters **Default Value** N/A

Status code: 400

Table 6-382 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-383 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

None

Example Responses

Status code: 200

Resources queried.

```
{
  "resources" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : [ {
      "name" : "instance_id",
      "value" : "4270ff17-aba3-4138-89fa-820594c39755"
    } ]
  } ],
  "count" : 100
}
```

Status Codes

Status Code	Description
200	Resources queried.
400	Parameter verification failed.
500	Internal system error.

Error Codes

See **Error Codes**.

6.12 Dashboards

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

6.12.1 Creating or Copying a Dashboard

Function

This API is used to create or copy a dashboard.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

URI

POST /v2/{project_id}/dashboards

Table 6-384 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 6-385 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-386 Request body parameters

Parameter	Mandatory	Type	Description
dashboard_name	Yes	String	**Description** Custom dashboard name. **Constraints** N/A **Range** The value allows 1 to 128 characters and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
enterprise_id	No	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value allows 36 characters. It can only contain lowercase letters, digits, hyphens (-), and underscores (_). You can customize an enterprise project ID. It can also be **0** (default enterprise project ID). **Default Value** N/A
dashboard_id	No	String	**Description** Dashboard ID. **Constraints** N/A **Range** The value starts with **db** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A
row_widget_num	No	Integer	**Description** How a graph is displayed. **Constraints** N/A **Range** • **0**: You can customize **top** and **left** of the graph. • **1**: one graph per row • **2**: two graphs per row • **3**: three graphs per row **Default Value** 3

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 201

Table 6-387 Response body parameters

Parameter	Type	Description
dashboard_id	String	**Description** Dashboard ID. **Range** The value starts with **db** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters.

Status code: 400

Table 6-388 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-389 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-390 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "dashboard_name" : "dashboard_name",
  "enterprise_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
  "dashboard_id" : "dbxxxxxxxxxxxxxxxxxxxxxxx",
  "row_widget_num" : 3
}
```

Example Responses

Status code: 201

OK

```
{
  "dashboard_id" : "dbxxxxxxxxx"
}
```

Status Codes

Status Code	Description
201	OK
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

6.12.2 Querying Dashboards

Function

This API is used to query dashboards.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

URI

GET /v2/{project_id}/dashboards

Table 6-391 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-392 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_id	No	String	**Definition** Enterprise project ID. **Constraints** N/A **Range** The value allows 36 characters. It can only contain lowercase letters, digits, hyphens (-), and underscores (_). You can customize an enterprise project ID. The value can also be **0** (default enterprise project ID) or **all_granted_eps** (all enterprise project IDs). **Default Value** N/A
is_favorite	No	Boolean	**Definition** Whether a dashboard in an enterprise project is added to favorites. **Constraints** If this parameter is specified, **enterprise_id** is mandatory. **Range** • **true**: added to favorites • **false**: not added to favorites **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dashboard_name	No	String	**Definition** Dashboard name. **Constraints** N/A **Range** The value allows 1 to 128 characters and can only contain letters, digits, underscores (_), and hyphens (-). **Default Value** N/A
dashboard_id	No	String	**Definition** Dashboard ID. **Constraints** N/A **Range** The value starts with **db** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A
dashboard_type	No	String	**Definition** Dashboard type. **Constraints** N/A **Range** • **monitor_dashboard**: dashboard • **other**: custom dashboard **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-393 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-394 Response body parameters

Parameter	Type	Description
dashboards	Array of **DashBoardInfo** objects	**Description** Dashboard list.

Table 6-395 DashBoardInfo

Parameter	Type	Description
dashboard_id	String	**Description** Dashboard ID. **Range** The value starts with **db** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
dashboard_name	String	**Definition** Custom dashboard name. **Range** The value allows 1 to 128 characters and can only contain letters, digits, underscores (_), and hyphens (-).
enterprise_id	String	**Definition** Enterprise project ID. **Range** The value allows 36 characters. It can only contain lowercase letters, digits, hyphens (-), and underscores (_). You can customize an enterprise project ID. It can also be **0** (default enterprise project ID).
creator_name	String	**Definition** Name of the user who created the dashboard. **Range** The value allows 1 to 128 characters and can only contain letters, digits, underscores (_), and hyphens (-).
create_time	Long	**Definition** Dashboard creation time. **Range** **1111111111111** to **9999999999999**
widgets_num	Integer	**Definition** Total number of graphs on the dashboard. **Range** **0** to **50**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). It must contain 3 to 32 characters.
sub_product	String	**Definition** Sub-product ID. **Range** 1 to 128 characters
dashboard_template_id	String	**Definition** Dashboard template ID. **Range** The value starts with **mb** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters.
row_widget_num	Integer	**Definition** Number of graphs per row. **Range** • **0**: You can customize **top** and **left** of the graph. • **1**: one graph per row • **2**: two graphs per row • **3**: three graphs per row
is_favorite	Boolean	**Definition** Whether a dashboard is added to favorites. **Range** • **true**: added to favorites • **false**: not added to favorites

Status code: 400

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-396 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-397 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-398 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

None

Example Responses

Status code: 200

OK

```
{
  "dashboards" : [ {
    "dashboard_id" : "dbxxxxxxxxxxxxxxxxxxxxxx",
    "dashboard_name" : "dashboard_name",
    "enterprise_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
    "creator_name" : "creator_name",
    "create_time" : 1111111111111,
    "row_widget_num" : 3,
    "is_favorite" : false
  } ]
}
```

Status Codes

Status Code	Description
200	OK
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

6.12.3 Modifying a Dashboard

Function

This API is used to modify a dashboard.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

URI

PUT /v2/{project_id}/dashboards/{dashboard_id}

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-399 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
dashboard_id	Yes	String	**Definition** Dashboard ID. **Constraints** N/A **Range** The value starts with **db** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-400 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-401 Request body parameters

Parameter	Mandatory	Type	Description
dashboard_name	No	String	Custom dashboard name.
is_favorite	No	Boolean	Whether a dashboard is added to favorites. The value can be **true** or **false**.
row_widget_num	Yes	Integer	How a graph is displayed. **0** indicates that you can customize **top** and **left** of the graph. **1** indicates one graph per row.
extend_info	No	**ExtendInfo** object	Extended information about the dashboard.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-402 ExtendInfo

Parameter	Mandatory	Type	Description
filter	No	String	Metric aggregation mode. The value can be **average**, **min**, **max**, or **sum**.
period	No	String	Metric rollup period. {**1** indicates the original value, **60** indicates one minute, **300** indicates five minutes, **1200** indicates 20 minutes, **3600** indicates one hour, **14400** indicates four hours, and **86400** indicates one day.}
display_time	No	Integer	Display time. The value **0** indicates that you can customize a time. The value can be 5 minutes, 15 minutes, 30 minutes, 1 hour, 2 hours, 3 hours, 12 hours, 1 day, 7 days, or 30 days.
refresh_time	No	Integer	Refresh interval. The value can be **0** (not refreshed), 10s, 1 min, 5 mins, or 20 mins.
from	No	Long	Start time.
to	No	Long	End time.
screen_color	No	String	Background color of the dashboard.
enable_screen_auto_play	No	Boolean	Whether the monitoring dashboard can be automatically switched.
time_interval	No	Integer	Auto-switch interval for dashboard. The value can be **10000** (10s), **30000** (30s), and **60000** (1 min).
enable_legend	No	Boolean	Whether to display the legend.
full_screen_widget_num	No	Integer	Number of graphs displayed on the dashboard. The value must be consistent with an available one on the console.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 204

No Content

Status code: 400

Table 6-403 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-404 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-405 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "dashboard_name" : "dashboard_name_new",
  "is_favorite" : true,
  "row_widget_num" : 0
}
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

6.12.4 Deleting Dashboards in Batches

Function

This API is used to delete dashboards in batches.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

URI

POST /v2/{project_id}/dashboards/batch-delete

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-406 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

Request Parameters

Table 6-407 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-408 Request body parameters

Parameter	Mandatory	Type	Description
dashboard_ids	No	Array of strings	Dashboard ID list.

Response Parameters

Status code: 200

Table 6-409 Response body parameters

Parameter	Type	Description
dashboards	Array of **BatchDeleteDashboardRespInfo** objects	Response body for deleting dashboards in batches.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-410 BatchDeleteDashboardRespInfo

Parameter	Type	Description
dashboard_id	String	**Description** Dashboard ID. **Constraints** N/A **Range** The value starts with **db** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A
ret_status	String	Operation result. The value can be **successful** or **error**.
error_msg	String	Error message.

Status code: 400

Table 6-411 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-412 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-413 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
{
  "dashboard_ids" : [ "dbxxxxxxxxxxxxxxxxxxxxxx", "dbXXXXXXXXXXXXXXXXXXXXXX" ]
}
```

Example Responses

Status code: 200

OK

```
{
  "dashboards" : [ {
    "dashboard_id" : "dbxxxxxxxxxxxxxxxxxxxxxx",
    "ret_status" : "successful"
  }, {
    "dashboard_id" : "dbXXXXXXXXXXXXXXXXXXXXXX",
    "ret_status" : "error",
    "error_msg" : "record not found"
  } ]
}
```

Status Codes

Status Code	Description
200	OK
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

6.13 Graphs

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

6.13.1 Creating, Copying, or Batch Creating Graphs on a Dashboard

Function

This API is used to create, copy, or batch create graphs on a dashboard.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

URI

POST /v2/{project_id}/dashboards/{dashboard_id}/widgets

Table 6-414 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
dashboard_id	Yes	String	**Definition** Dashboard ID. **Constraints** N/A **Range** The value starts with **db** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A

Request Parameters

Table 6-415 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-416 Request body parameters

Parameter	Mandatory	Type	Description
[items]	No	Array of **BaseWidgetInfo** objects	**Definition** Graph information. **Constraints** N/A

Table 6-417 BaseWidgetInfo

Parameter	Mandatory	Type	Description
group_id	No	String	**Definition** Graph group ID. **Constraints** N/A **Range** The value must start with **dg** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A
metrics	Yes	Array of **WidgetMetric** objects	**Definition** Metric list. **Constraints** Up to 200 metrics may be included, with at least one required.
title	Yes	String	**Definition** Graph name. **Constraints** N/A **Range** The value can include 1 to 128 characters. It can contain digits, letters, and the following special characters: "≤<>&/%_:;'?+,~()°[.- **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
threshold	No	Double	**Definition** Threshold of metrics on the graph. **Constraints** N/A **Range** **0** to **1.7976931348623157e+308** **Default Value** N/A
threshold_enabled	Yes	Boolean	**Definition** Whether to display the threshold. **Constraints** N/A **Range** • **true**: display • **false**: not display **Default Value** N/A
view	Yes	String	**Definition** Graph type. **Constraints** N/A **Range** • **bar**: horizontal bar chart • **line**: line chart • **bar_chart**: bar chart • **table**: table • **circular_bar**: radial bar chart • **area_chart**: area chart **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_display_mode	Yes	String	**Definition** Metric display type. **Constraints** N/A **Range** • **single**: single-metric • **multiple**: multi-metric **Default Value** N/A
properties	No	**properties** object	**Definition** Additional information. **Constraints** N/A
location	Yes	**location** object	**Definition** Graph coordinates. **Constraints** N/A
unit	No	String	**Definition** Unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-418 WidgetMetric

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimensions	Yes	**DimensionInfo** object	**Description** Dimension list. **Constraints** N/A
metric_name	Yes	String	**Definition** Multiple metric names. **Constraints** N/A **Range** The value can contain 1 to 1,080 characters. Multiple metric names are separated by commas (,). **Default Value** N/A
alias	No	Array of strings	**Definition** Metric aliases of the graph. **Constraints** This parameter can be transferred only when the resource type is set to **Specified resources**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
extra_info	No	ExtraInfo object	**Definition** Metric information. **Constraints** N/A
last_week_compare_enable	No	Boolean	**Definition** Whether to display comparison data (same period last week). **Constraints** N/A **Range** • **true**: display • **false**: not display **Default Value** N/A
yesterday_compare_enable	No	Boolean	**Definition** Whether to display comparison data (same period yesterday). **Constraints** N/A **Range** • **true**: display • **false**: not display **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_dimension	No	String	**Definition** Dimension name. For details about the dimensions supported by each service, see **Service Dimension Names**. The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). Multiple dimensions are separated by commas (,). Each dimension allows 32 characters. The value can contain 1 to 131 characters. A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios. **Constraints** N/A **Range** 1 to 131 characters **Default Value** N/A
top_num	No	Integer	**Definition** Number of displayed data records. **Constraints** N/A **Range** 1 to 200 **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
unit	No	String	**Definition** Unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A
order	No	String	**Definition** Sorting field. **Constraints** N/A **Range** • **asc**: ascending • **desc**: descending **Default Value** N/A
topn_metric_name	No	String	**Definition** Metric name of a resource. The name must start with a letter and contain only digits, letters, and underscores. The length ranges from 1 to 64 characters. For example, **cpu_util** of an ECS indicates the CPU usage of the ECS. **mongo001_command_ps** in DDS indicates the command execution frequency. For details about the metric name of each service, see **Service Metric Names**. **Constraints** N/A **Range** 1 to 96 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-419 DimensionInfo

Parameter	Mandatory	Type	Description
name	Yes	String	**Description** Dimension name. **Constraints** N/A **Range** Multiple dimensions are separated using commas (,). For details about the dimensions supported by each cloud service, see **Services Interconnected with Cloud Eye**. The value must start with a letter. Each dimension allows 1 to 32 characters and can only contain letters, digits, underscores (_), and hyphens (-). Multiple dimensions are separated using commas (,). The value can contain 1 to 131 characters. A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios. **Default Value** N/A
filter_type	Yes	String	**Description** Resource type. **Constraints** N/A **Range** • **all_instances**: all resources • **specific_instances**: specified resources **Default Value** N/A
values	No	Array of strings	**Description** Dimension value list. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-420 ExtraInfo

Parameter	Mandatory	Type	Description
origin_metric_name	Yes	String	**Definition** Metric name. **Constraints** N/A **Range** 1 to 4,096 characters **Default Value** N/A
metric_prefix	No	String	**Definition** Metric name prefix. **Constraints** N/A **Range** 1 to 4,096 characters **Default Value** N/A
metric_type	No	String	**Definition** Metric type. **Constraints** N/A **Range** 1 to 32 characters **Default Value** N/A
custom_proc_name	No	String	**Definition** Custom process name. **Constraints** N/A **Range** 1 to 250 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-421 properties

Parameter	Mandatory	Type	Description
filter	No	String	**Definition** Aggregation type. **Constraints** This parameter is not available for line charts. **Range** The value can only be **TopN**. **Default Value** N/A
topN	No	Integer	**Definition** Top N values. In a line chart, this parameter indicates the number of time series data records that are randomly displayed. **Constraints** N/A **Range** **1** to **2147483647** **Default Value** 100
order	No	String	**Definition** Sorting field. **Constraints** This parameter is not available for line charts. **Range** • **asc**: ascending • **desc**: descending **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
description	No	String	**Definition** Description of the graph. **Constraints** N/A **Range** [0,200] **Default Value** N/A
last_week_compare_enable	No	Boolean	**Definition** Whether to display comparison data (same period last week). **Constraints** N/A **Range** • **true**: display • **false**: not display **Default Value** N/A
yesterday_compare_enable	No	Boolean	**Definition** Whether to display comparison data (same period yesterday). **Constraints** N/A **Range** • **true**: display • **false**: not display **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
legend_location	No	String	**Definition** Legend location. **Constraints** This parameter is not available for tables. **Range** • **hide**: Hide the legend. • **right**: Place the legend on the right of the graph. • **bottom**: Place the legend at the bottom of the graph. **Default Value** N/A
legend_values	No	Array of strings	**Definition** List of statistical values to be displayed in the legend for the current time series. **Constraints** This parameter is not available for tables. For horizontal bar charts and vertical bar charts, only **last** can be selected for this parameter.
thresholds	No	Array of **ThresholdInfo** objects	**Definition** Threshold line configured for the graph. **Constraints** N/A
is_all_compare_enable	No	Boolean	**Definition** Whether to enable PoP comparison. **Constraints** N/A **Range** • **true**: enable • **false**: disable **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-422 ThresholdInfo

Parameter	Mandatory	Type	Description
threshold	Yes	Number	**Definition** Threshold of the threshold line configured for the graph. **Constraints** N/A **Range** The value ranges from **0** to **2147483647**. **Default Value** N/A
threshold_color	Yes	String	**Definition** Color of the threshold line for the graph. **Constraints** N/A **Range** • "#B50E65": purple • "#F23030": red • "#FF8800": orange • "#F2E70C": yellow **Default Value** N/A

Table 6-423 location

Parameter	Mandatory	Type	Description
top	Yes	Integer	**Definition** Grids between the graph and the top of the dashboard. **Constraints** N/A **Range** The value ranges from **0** to **2147483647**. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
left	Yes	Integer	**Definition** Grids between the graph and the left side of the dashboard. **Constraints** N/A **Range** **0** to **9** **Default Value** N/A
width	Yes	Integer	**Definition** Graph width. **Constraints** N/A **Range** **3** to **12** **Default Value** N/A
height	Yes	Integer	**Definition** Graph height. **Constraints** N/A **Range** **3** to **2147483647** **Default Value** N/A

Response Parameters

Status code: 200

Table 6-424 Response body parameters

Parameter	Type	Description
widget_ids	Array of strings	**Definition** Response body for creating graphs in batches.

Status code: 400

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-425 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-426 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-427 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
[ {
  "metrics" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : {
      "name" : "instance_id",
      "filter_type" : "specific_instances",
      "values" : [ "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx" ]
    },
    "metric_name" : "cpu_util",
    "alias" : [ "cpuutilalias" ],
    "extra_info" : {
      "origin_metric_name" : "cpu_util",
      "metric_prefix" : "cpu",
      "metric_type" : "type",
      "custom_proc_name" : "app.sh"
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
    }
  } ],
  "view" : "bar",
  "metric_display_mode" : "single",
  "threshold" : 0.7,
  "threshold_enabled" : true,
  "title" : "widget_title",
  "properties" : {
    "filter" : "topN",
    "topN" : 100,
    "order" : "desc"
  },
  "location" : {
    "left" : 0,
    "top" : 0,
    "width" : 4,
    "height" : 3
  },
  "unit" : "%"
} ]
```

Example Responses

Status code: 200

OK

```
{
  "widget_ids" : [ "wgx234567890123456789012" ]
}
```

Status Codes

Status Code	Description
200	OK
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

6.13.2 Querying Graphs Added to a Dashboard

Function

This API is used to query graphs on a dashboard.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

URI

GET /v2/{project_id}/dashboards/{dashboard_id}/widgets

Table 6-428 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
dashboard_id	Yes	String	**Definition** Dashboard ID. **Constraints** N/A **Range** The value starts with **db** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A

Table 6-429 Query Parameters

Parameter	Mandatory	Type	Description
group_id	No	String	ID of the group that the graph belongs to.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-430 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-431 Response body parameters

Parameter	Type	Description
widgets	Array of **WidgetInfoWithId** objects	Graph list.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-432 WidgetInfoWithId

Parameter	Type	Description
widget_id	String	**Definition** Graph ID. **Range** The value must start with **wg** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters.
group_id	String	**Definition** Graph group ID. **Range** The value must start with **dg** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. The value can also be **default** (no grouping).
metrics	Array of **WidgetMetricResp** objects	**Definition** Metric list.
title	String	**Definition** Graph name. **Range** The value can include 1 to 128 characters. It can contain digits, letters, and the following special characters: "≤<>&/%_:;'?+,~()°[.-
threshold	Double	**Definition** Threshold of metrics on the graph. **Range** **0** to **1.7976931348623157e+308**
threshold_enabled	Boolean	**Definition** Whether to display the threshold. **Range** • **true**: display • **false**: not display

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
view	String	**Definition** Graph type. **Range** • **bar**: horizontal bar chart • **line**: line chart • **bar_chart**: bar chart • **table**: table • **circular_bar**: radial bar chart • **area_chart**: area chart
metric_display_mode	String	**Definition** Metric display type. **Range** • **single**: single-metric • **multiple**: multi-metric
properties	**properties** object	**Definition** Additional information.
location	**location** object	**Definition** Graph coordinates.
unit	String	**Definition** Unit. **Range** 0 to 32 characters
create_time	Long	**Definition** Dashboard creation time. **Range** **1111111111111** to **9999999999999**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-433 WidgetMetricResp

Parameter	Type	Description
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters.
dimensions	**DimensionInfoResp** object	**Description** Dimension list.
metric_name	String	**Definition** Multiple metric names. **Range** The value can contain 1 to 1,080 characters. Multiple metric names are separated by commas (,).
alias	Array of strings	**Definition** Metric aliases of the graph.
extra_info	**ExtraInfoResp** object	**Definition** Metric information.
last_week_compare_enable	Boolean	**Definition** Whether to display comparison data (same period last week). **Range** • **true**: display • **false**: not display
yesterday_compare_enable	Boolean	**Definition** Whether to display comparison data (same period yesterday). **Range** • **true**: display • **false**: not display

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_dimension	String	**Definition** Dimension name. Multiple dimensions are separated using commas (,). For details about the dimensions supported by each cloud service, see **Services Interconnected with Cloud Eye**. **Range** The value must start with a letter. Each dimension allows 1 to 32 characters and can only contain letters, digits, underscores (_), and hyphens (-). Multiple dimensions are separated using commas (,). The value can contain 1 to 131 characters. A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios.
top_num	Integer	**Definition** Number of displayed data records. **Range** 1 to 200
unit	String	**Definition** Unit. **Range** 0 to 32 characters
order	String	**Definition** Sorting field. **Range** • **asc**: ascending • **desc**: descending

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
topn_metric_name	String	**Definition** Metric name of a resource. The name must start with a letter and contain only digits, letters, and underscores. The length ranges from 1 to 64 characters. For example, **cpu_util** of an ECS indicates the CPU usage of the ECS. **mongo001_command_ps** in DDS indicates the command execution frequency. For details about the metric name of each service, see **Service Metric Names**. **Range** 1 to 96 characters

Table 6-434 DimensionInfoResp

Parameter	Type	Description
name	String	**Description** Dimension name. **Range** Multiple dimensions are separated using commas (,). For details about the dimensions supported by each cloud service, see **Services Interconnected with Cloud Eye**. The value must start with a letter. Each dimension allows 1 to 32 characters and can only contain letters, digits, underscores (_), and hyphens (-). Multiple dimensions are separated using commas (,). The value can contain 1 to 131 characters. A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios.
filter_type	String	**Description** Resource type. **Range** • **all_instances**: all resources • **specific_instances**: specified resources

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
values	Array of strings	**Description** Dimension value list.

Table 6-435 ExtraInfoResp

Parameter	Type	Description
origin_metric_name	String	**Definition** Metric name. **Range** 1 to 4,096 characters
metric_prefix	String	**Definition** Metric name prefix. **Range** 1 to 4,096 characters
metric_type	String	**Definition** Metric type. **Range** 1 to 32 characters
custom_proc_name	String	**Definition** Custom process name. **Range** 1 to 250 characters

Table 6-436 properties

Parameter	Type	Description
filter	String	**Definition** Aggregation type. **Range** The value can only be **TopN**. This parameter is not available for line charts.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
topN	Integer	**Definition** Top N values. In a line chart, this parameter indicates the number of time series data records that are randomly displayed. **Range** **1** to **2147483647**
order	String	**Definition** Sorting field. **Range** • **asc**: ascending • **desc**: descending
description	String	**Definition** Description of the graph. **Range** [0,200]
last_week_compare_enable	Boolean	**Definition** Whether to display comparison data (same period last week). **Range** • **true**: display • **false**: not display
yesterday_compare_enable	Boolean	**Definition** Whether to display comparison data (same period yesterday). **Range** • **true**: display • **false**: not display
legend_location	String	**Definition** Legend location. **Range** • **hide**: Hide the legend. • **right**: Place the legend on the right of the graph. • **bottom**: Place the legend at the bottom of the graph.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
legend_values	Array of strings	**Definition** List of statistical values to be displayed in the legend for the current time series.
thresholds	Array of **ThresholdInfoResp** objects	**Definition** Threshold line configured for the graph.
is_all_compare_enable	Boolean	**Definition** Whether to enable PoP comparison. **Range** • **true**: enable • **false**: disable

Table 6-437 ThresholdInfoResp

Parameter	Type	Description
threshold	Number	**Definition** Threshold of the threshold line configured for the graph. **Range** The value ranges from **0** to **2147483647**.
threshold_color	String	**Definition** Color of the threshold line for the graph. **Range** • "#B50E65": purple • "#F23030": red • "#FF8800": orange • "#F2E70C": yellow

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-438 location

Parameter	Type	Description
top	Integer	**Definition** Grids between the graph and the top of the dashboard. **Range** The value ranges from **0** to **2147483647**.
left	Integer	**Definition** Grids between the graph and the left side of the dashboard. **Range** **0** to **9**
width	Integer	**Definition** Graph width. **Range** **3** to **12**
height	Integer	**Definition** Graph height. **Range** **3** to **2147483647**

Status code: 400

Table 6-439 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-440 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-441 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

None

Example Responses

Status code: 200

OK

```
[ {
  "widget_id" : "wg1234567890123456789012",
  "metrics" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : {
      "name" : "instance_id",
      "filter_type" : "specific_instances",
      "values" : [ "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx" ]
    }
  } ],
  "view" : "bar",
  "metric_display_mode" : "single",
  "threshold" : 0.7,
  "threshold_enabled" : true,
  "title" : "widget_title",
  "properties" : {
    "filter" : "topN",
    "topN" : 100,
    "order" : "desc"
  },
  "location" : {
    "left" : 0,
    "top" : 0,
    "width" : 4,
```

```
    "height" : 3
  },
  "unit" : "%",
  "create_time" : 1111111111111
} ]
```

Status Codes

Status Code	Description
200	OK
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

6.13.3 Querying Information About a Graph

Function

This API is used to query information about a graph.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

URI

GET /v2/{project_id}/widgets/{widget_id}

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-442 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
widget_id	Yes	String	**Definition** Graph ID. **Constraints** N/A **Range** The value must start with **wg** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-443 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-444 Response body parameters

Parameter	Type	Description
widget_id	String	**Definition** Graph ID. **Range** The value must start with **wg** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
group_id	String	**Definition** Graph group ID. **Range** The value must start with **dg** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. The value can also be **default** (no grouping).
metrics	Array of **WidgetMetricResp** objects	**Definition** Metric list.
title	String	**Definition** Graph name. **Range** The value can include 1 to 128 characters. It can contain digits, letters, and the following special characters: "≤<>&/%_:;'?+,~()°[.-
threshold	Double	**Definition** Threshold of metrics on the graph. **Range** **0** to **1.7976931348623157e+308**
threshold_enabled	Boolean	**Definition** Whether to display the threshold. **Range** • **true**: display • **false**: not display
view	String	**Definition** Graph type. **Range** • **bar**: horizontal bar chart • **line**: line chart • **bar_chart**: bar chart • **table**: table • **circular_bar**: radial bar chart • **area_chart**: area chart

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_display_mode	String	**Definition** Metric display type. **Range** • **single**: single-metric • **multiple**: multi-metric
properties	**properties** object	**Definition** Additional information.
location	**location** object	**Definition** Graph coordinates.
unit	String	**Definition** Unit. **Range** 0 to 32 characters
create_time	Long	**Definition** Dashboard creation time. **Range** **1111111111111** to **9999999999999**

Table 6-445 WidgetMetricResp

Parameter	Type	Description
namespace	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters.
dimensions	**DimensionInfoResp** object	**Description** Dimension list.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_name	String	**Definition** Multiple metric names. **Range** The value can contain 1 to 1,080 characters. Multiple metric names are separated by commas (,).
alias	Array of strings	**Definition** Metric aliases of the graph.
extra_info	**ExtraInfoResp** object	**Definition** Metric information.
last_week_compare_enable	Boolean	**Definition** Whether to display comparison data (same period last week). **Range** • **true**: display • **false**: not display
yesterday_compare_enable	Boolean	**Definition** Whether to display comparison data (same period yesterday). **Range** • **true**: display • **false**: not display
metric_dimension	String	**Definition** Dimension name. Multiple dimensions are separated using commas (,). For details about the dimensions supported by each cloud service, see **Services Interconnected with Cloud Eye**. **Range** The value must start with a letter. Each dimension allows 1 to 32 characters and can only contain letters, digits, underscores (_), and hyphens (-). Multiple dimensions are separated using commas (,). The value can contain 1 to 131 characters. A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
top_num	Integer	**Definition** Number of displayed data records. **Range** 1 to 200
unit	String	**Definition** Unit. **Range** 0 to 32 characters
order	String	**Definition** Sorting field. **Range** • **asc**: ascending • **desc**: descending
topn_metric_name	String	**Definition** Metric name of a resource. The name must start with a letter and contain only digits, letters, and underscores. The length ranges from 1 to 64 characters. For example, **cpu_util** of an ECS indicates the CPU usage of the ECS. **mongo001_command_ps** in DDS indicates the command execution frequency. For details about the metric name of each service, see **Service Metric Names**. **Range** 1 to 96 characters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-446 DimensionInfoResp

Parameter	Type	Description
name	String	**Description** Dimension name. **Range** Multiple dimensions are separated using commas (,). For details about the dimensions supported by each cloud service, see **Services Interconnected with Cloud Eye**. The value must start with a letter. Each dimension allows 1 to 32 characters and can only contain letters, digits, underscores (_), and hyphens (-). Multiple dimensions are separated using commas (,). The value can contain 1 to 131 characters. A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios.
filter_type	String	**Description** Resource type. **Range** • **all_instances**: all resources • **specific_instances**: specified resources
values	Array of strings	**Description** Dimension value list.

Table 6-447 ExtraInfoResp

Parameter	Type	Description
origin_metric_name	String	**Definition** Metric name. **Range** 1 to 4,096 characters
metric_prefix	String	**Definition** Metric name prefix. **Range** 1 to 4,096 characters

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
metric_type	String	**Definition** Metric type. **Range** 1 to 32 characters
custom_proc_name	String	**Definition** Custom process name. **Range** 1 to 250 characters

Table 6-448 properties

Parameter	Type	Description
filter	String	**Definition** Aggregation type. **Range** The value can only be **TopN**. This parameter is not available for line charts.
topN	Integer	**Definition** Top N values. In a line chart, this parameter indicates the number of time series data records that are randomly displayed. **Range** **1** to **2147483647**
order	String	**Definition** Sorting field. **Range** • **asc**: ascending • **desc**: descending
description	String	**Definition** Description of the graph. **Range** [0,200]

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
last_week_compare_enable	Boolean	**Definition** Whether to display comparison data (same period last week). **Range** • **true**: display • **false**: not display
yesterday_compare_enable	Boolean	**Definition** Whether to display comparison data (same period yesterday). **Range** • **true**: display • **false**: not display
legend_location	String	**Definition** Legend location. **Range** • **hide**: Hide the legend. • **right**: Place the legend on the right of the graph. • **bottom**: Place the legend at the bottom of the graph.
legend_values	Array of strings	**Definition** List of statistical values to be displayed in the legend for the current time series.
thresholds	Array of **ThresholdInfoResp** objects	**Definition** Threshold line configured for the graph.
is_all_compare_enable	Boolean	**Definition** Whether to enable PoP comparison. **Range** • **true**: enable • **false**: disable

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-449 ThresholdInfoResp

Parameter	Type	Description
threshold	Number	**Definition** Threshold of the threshold line configured for the graph. **Range** The value ranges from **0** to **2147483647**.
threshold_color	String	**Definition** Color of the threshold line for the graph. **Range** • "#B50E65": purple • "#F23030": red • "#FF8800": orange • "#F2E70C": yellow

Table 6-450 location

Parameter	Type	Description
top	Integer	**Definition** Grids between the graph and the top of the dashboard. **Range** The value ranges from **0** to **2147483647**.
left	Integer	**Definition** Grids between the graph and the left side of the dashboard. **Range** **0** to **9**
width	Integer	**Definition** Graph width. **Range** **3** to **12**
height	Integer	**Definition** Graph height. **Range** **3** to **2147483647**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 400

Table 6-451 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-452 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-453 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

None

Example Responses

Status code: 200

OK

```
{
  "widget_id" : "wg123456789012345678901",
```

```
"metrics" : [ {
  "namespace" : "SYS.ECS",
  "dimensions" : {
    "name" : "instance_id",
    "filter_type" : "all_instances"
  },
  "metric_name" : "cpu_util",
  "alias" : [ "cpuutilalias" ],
  "extra_info" : {
    "origin_metric_name" : "cpu_util",
    "metric_prefix" : "cpu",
    "metric_type" : "type",
    "custom_proc_name" : "app.sh"
  }
} ],
"view" : "bar",
"metric_display_mode" : "single",
"threshold" : 0.7,
"threshold_enabled" : true,
"title" : "widget_title",
"properties" : {
  "filter" : "topN",
  "topN" : 100,
  "order" : "desc",
  "description" : "Simple example.",
  "last_week_compare_enable" : false,
  "yesterday_compare_enable" : false,
  "legend_location" : "right",
  "legend_values" : [ "max", "min" ],
  "thresholds" : [ {
    "threshold" : 90,
    "threshold_color" : "#F23030"
  } ]
},
"location" : {
  "left" : 0,
  "top" : 0,
  "width" : 4,
  "height" : 3
},
"unit" : "%",
"create_time" : 1111111111111
}
```

Status Codes

Status Code	Description
200	OK
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

6.13.4 Deleting a Graph

Function

This API is used to delete a graph.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

URI

DELETE /v2/{project_id}/widgets/{widget_id}

Table 6-454 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
widget_id	Yes	String	**Definition** Graph ID. **Constraints** N/A **Range** The value must start with **wg** and is followed by 22 characters of letters, digits, or a combination of both. The total length is 24 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-455 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 204

No Content

Status code: 400

Table 6-456 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status code: 401

Table 6-457 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-458 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

None

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

6.13.5 Updating Graphs in Batches

Function

This API is used to update graphs in batches.

Constraints

This API is not supported in the following regions: CN East-Qingdao, LA-Mexico City1, TR-Istanbul, AP-Jakarta, ME-Riyadh, and AP-Manila.

URI

POST /v2/{project_id}/widgets/batch-update

Table 6-459 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-460 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Table 6-461 Request body parameters

Parameter	Mandatory	Type	Description
[items]	Yes	Array of **UpdateWidgetInfo** objects	List of graphs to be modified.

Table 6-462 UpdateWidgetInfo

Parameter	Mandatory	Type	Description
group_id	No	String	Graph partition ID.
widget_id	Yes	String	Graph ID.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metrics	No	Array of **WidgetMetric** objects	Metric list.
title	No	String	Graph name.
threshold	No	Double	Threshold of metrics on the graph.
threshold_enabled	No	Boolean	Whether to display thresholds of metrics. The value can be **true** (to display) and **false** (not to display).
view	No	String	Graph type. The value can be **bar**, **line**, **bar_chart**, **table**, **circular_bar**, or **area_chart**.
metric_display_mode	No	String	Metric display mode. The value can be **single** or **multiple**.
properties	No	**properties** object	Graph display configuration.
location	No	**location** object	Graph coordinates.
unit	No	String	**Definition** Unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-463 WidgetMetric

Parameter	Mandatory	Type	Description
namespace	Yes	String	**Definition** Namespace of a service. For details about the namespace of each service, see **Namespaces**. **Constraints** N/A **Range** The value is in the service.item format. The values of **service** and **item** must be a string, starting with a letter and containing only digits (0–9), letters (case-insensitive), and underscores (_). The value must contain 3 to 32 characters. **Default Value** N/A
dimensions	Yes	**DimensionInfo** object	**Description** Dimension list. **Constraints** N/A
metric_name	Yes	String	**Definition** Multiple metric names. **Constraints** N/A **Range** The value can contain 1 to 1,080 characters. Multiple metric names are separated by commas (,). **Default Value** N/A
alias	No	Array of strings	**Definition** Metric aliases of the graph. **Constraints** This parameter can be transferred only when the resource type is set to **Specified resources**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
extra_info	No	ExtraInfo object	**Definition** Metric information. **Constraints** N/A
last_week_compare_enable	No	Boolean	**Definition** Whether to display comparison data (same period last week). **Constraints** N/A **Range** • **true**: display • **false**: not display **Default Value** N/A
yesterday_compare_enable	No	Boolean	**Definition** Whether to display comparison data (same period yesterday). **Constraints** N/A **Range** • **true**: display • **false**: not display **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
metric_dimension	No	String	**Definition** Dimension name. For details about the dimensions supported by each service, see **Service Dimension Names**. The value must start with a letter and can only contain digits, letters, underscores (_), and hyphens (-). Multiple dimensions are separated by commas (,). Each dimension allows 32 characters. The value can contain 1 to 131 characters. A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios. **Constraints** N/A **Range** 1 to 131 characters **Default Value** N/A
top_num	No	Integer	**Definition** Number of displayed data records. **Constraints** N/A **Range** 1 to 200 **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
unit	No	String	**Definition** Unit. **Constraints** N/A **Range** 0 to 32 characters **Default Value** N/A
order	No	String	**Definition** Sorting field. **Constraints** N/A **Range** • **asc**: ascending • **desc**: descending **Default Value** N/A
topn_metric_name	No	String	**Definition** Metric name of a resource. The name must start with a letter and contain only digits, letters, and underscores. The length ranges from 1 to 64 characters. For example, **cpu_util** of an ECS indicates the CPU usage of the ECS. **mongo001_command_ps** in DDS indicates the command execution frequency. For details about the metric name of each service, see **Service Metric Names**. **Constraints** N/A **Range** 1 to 96 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-464 DimensionInfo

Parameter	Mandatory	Type	Description
name	Yes	String	**Description** Dimension name. **Constraints** N/A **Range** Multiple dimensions are separated using commas (,). For details about the dimensions supported by each cloud service, see **Services Interconnected with Cloud Eye**. The value must start with a letter. Each dimension allows 1 to 32 characters and can only contain letters, digits, underscores (_), and hyphens (-). Multiple dimensions are separated using commas (,). The value can contain 1 to 131 characters. A maximum of four dimensions are supported. Example: **instance_id** for single-dimension scenarios; **instance_id,disk** for multi-dimension scenarios. **Default Value** N/A
filter_type	Yes	String	**Description** Resource type. **Constraints** N/A **Range** • **all_instances**: all resources • **specific_instances**: specified resources **Default Value** N/A
values	No	Array of strings	**Description** Dimension value list. **Constraints** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-465 ExtraInfo

Parameter	Mandatory	Type	Description
origin_metric_name	Yes	String	**Definition** Metric name. **Constraints** N/A **Range** 1 to 4,096 characters **Default Value** N/A
metric_prefix	No	String	**Definition** Metric name prefix. **Constraints** N/A **Range** 1 to 4,096 characters **Default Value** N/A
metric_type	No	String	**Definition** Metric type. **Constraints** N/A **Range** 1 to 32 characters **Default Value** N/A
custom_proc_name	No	String	**Definition** Custom process name. **Constraints** N/A **Range** 1 to 250 characters **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-466 properties

Parameter	Mandatory	Type	Description
filter	No	String	Aggregation type. Currently, the value can only be **TopN**. A line chart does not support this parameter.
topN	No	Integer	Top *N* values. In a line chart, this parameter indicates the number of time series data records that are randomly displayed.
order	No	String	Sorting field. The value can be **asc** (ascending order) or **desc** (descending order). A line chart does not support this parameter.
description	No	String	Description of the graph.
last_week_compare_enable	No	Boolean	Whether to display comparison data (same period last week). The value can be **true** or **false**.
yesterday_compare_enable	No	Boolean	Whether to display comparison data (same period yesterday). The value can be **true** or **false**.
legend_location	No	String	Legend position flag. The value can be **hide**, **right**, or **bottom**. Tables do not support this parameter.
legend_values	No	Array of strings	List of statistical values to be displayed in the legend for the current time series. This parameter is not supported in tables. For bar charts and bar charts, only **last** can be selected.
thresholds	No	Array of **ThresholdInfo** objects	Threshold line configured for the graph.
is_all_compare_enable	No	Boolean	Whether to enable PoP comparison. The value can be **true** or **false**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-467 ThresholdInfo

Parameter	Mandatory	Type	Description
threshold	Yes	Number	**Definition** Threshold of the threshold line configured for the graph. **Constraints** N/A **Range** The value ranges from **0** to **2147483647**. **Default Value** N/A
threshold_color	Yes	String	**Definition** Color of the threshold line for the graph. **Constraints** N/A **Range** • "#B50E65": purple • "#F23030": red • "#FF8800": orange • "#F2E70C": yellow **Default Value** N/A

Table 6-468 location

Parameter	Mandatory	Type	Description
top	Yes	Integer	Grids between the graph and the top of the dashboard.
left	Yes	Integer	Grids between the graph and the left side of the dashboard.
width	Yes	Integer	Graph width.
height	Yes	Integer	Graph height.

Response Parameters

Status code: 200

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-469 Response body parameters

Parameter	Type	Description
widgets	Array of **BatchUpdateWidgetInfo** objects	Update result list.

Table 6-470 BatchUpdateWidgetInfo

Parameter	Type	Description
widget_id	String	Graph ID.
ret_status	String	Update result. The value can be **successful** or **error**.
error_msg	String	Error message when an operation fails.

Status code: 400

Table 6-471 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 401

Table 6-472 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-473 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
[ {
  "widget_id" : "wgXXXXXXXXXXXXXXXXXXXXXX",
  "metrics" : [ {
    "namespace" : "SYS.ECS",
    "dimensions" : {
      "name" : "instance_id",
      "filter_type" : "all_instances"
    },
    "metric_name" : "cpu_util",
    "alias" : [ "cpuutilalias" ],
    "extra_info" : {
      "origin_metric_name" : "cpu_util",
      "metric_prefix" : "cpu",
      "metric_type" : "type",
      "custom_proc_name" : "app.sh"
    }
  } ],
  "view" : "bar",
  "metric_display_mode" : "single",
  "threshold" : 500,
  "threshold_enabled" : false,
  "title" : "widget_title_new",
  "properties" : {
    "filter" : "topN",
    "topN" : 10,
    "order" : "asc"
  },
  "location" : {
    "left" : 0,
    "top" : 3,
    "width" : 4,
    "height" : 3
  },
  "unit" : "%"
} ]
```

Example Responses

Status code: 200

OK

```
{
  "widgets" : [ {
    "widget_id" : "wgXXXXXXXXXXXXXXXXXXXXXX",
    "ret_status" : "successful"
  }, {
    "widget_id" : "wg987654321012345678901 2",
    "ret_status" : "error",
    "error_msg" : "record not found"
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
 }]
}
```

Status Codes

Status Code	Description
200	OK
400	The server failed to process the request.
401	Token authentication is required.
500	Failed to complete the request because of an internal server error.

Error Codes

See **Error Codes**.

6.14 Resource Tag Management

6.14.1 Querying Tags for a Specified Resource Type in a Cloud Eye Project

Function

This API is used to query tags of a type of resources in a Cloud Eye project.

URI

GET /v2/{project_id}/{resource_type}/tags

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-474 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
resource_type	Yes	String	**Definition** Resource type. **Constraints** N/A **Range** The value can only be **CES-alarm** (alarm rules). It contains 1 to 32 characters. **Default Value** N/A

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 6-475 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

Response Parameters

Status code: 200

Table 6-476 Response body parameters

Parameter	Type	Description
tags	Array of **TagResp** objects	**Definition** Tenant tags.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-477 TagResp

Parameter	Type	Description
key	String	**Definition** Tag name. **Range** Max. 128 Unicode characters
values	Array of strings	**Definition** Tag value. **Range** Each value can contain a maximum of 255 Unicode characters. If **values** is not specified, any parameter value can be queried.

Status code: 404

Table 6-478 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

None

Example Responses

Status code: 200

OK

```
{
  "tags" : [ {
    "key" : "key1",
    "values" : [ "value1", "value2" ]
  }, {
    "key" : "key2",
    "values" : [ "value1", "value2" ]
  } ]
}
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Status Codes

Status Code	Description
200	OK
404	Resource not found.

Error Codes

See **Error Codes**.

6.15 Metric Management

6.15.1 Querying the Original Dimension Values in Server Monitoring

Function

This API is used to query the original dimension value based on the ECS/BMS resource ID and special dimension value for disks, mount points, processes, GPUs, and RAID controllers. This API is not required for other dimensions.

URI

GET /v2/{project_id}/instances/{instance_id}/agent-dimensions

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-479 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It is used to specify the project that an asset belongs to. You can query the assets of a project by project ID. You can obtain the project ID from the API or console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** 1 to 64 characters **Default Value** N/A
instance_id	Yes	String	**Description** Resource ID, for example, **4270ff17-aba3-4138-89fa-820594c39755**. **Constraints**: None **Value range**: The value can contain a maximum of 36 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 6-480 Query Parameters

Parameter	Mandatory	Type	Description
dim_name	Yes	String	**Description** Dimension name. **Constraints**: None **Value range**: Enumerated values. The value can be **mount_point**, **disk**, **proc**, **gpu**, or **raid**. **Default value**: None
dim_value	No	String	**Description** Dimension value. Under the same **instance_id**, the same **dim_value** * corresponds to the same original dimension value **origin_value**, so you do not need to call this API for multiple times. You are advised to combine **instance_id** and **dim_value** as the key for data cache and reuse. **Constraints**: N/A **Range**: The value can contain a maximum of 32 characters, for example, **2e84018fc8b4484b94e89aae212fe615**. **Default value**: N/A
offset	No	Integer	**Description** Pagination offset. **Constraints**: None **Value range**: The value ranges from **0** to **2147483647**. **Default value**: 0

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
limit	No	Integer	**Description** Page size. **Constraints**: None **Value range**: The value ranges from **1** to **1000**. **Default value**: 1000

Request Parameters

Table 6-481 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	**Definition** MIME type of the request body. **Constraints**: None **Value range**: The value can contain 1 to 64 characters. **Default value**: The default type is **application/json; charset=UTF-8**.
X-Auth-Token	No	String	**Definition** User token. **Constraints**: None **Value range**: The value can contain 1 to 16,384 characters. **Default value**: None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Response Parameters

Status code: 200

Table 6-482 Response body parameters

Parameter	Type	Description
dimensions	Array of AgentDimension objects	**Definition**: Dimension information.
count	Integer	**Definition**: Total number of dimensions. **Value range**: The value is an integer from **0** to **2147483647**.

Table 6-483 AgentDimension

Parameter	Type	Description
name	String	**Definition**: Dimension name. **Value range**: Enumerated values. The value can be **mount_point**, **disk**, **proc**, **gpu**, or **raid**.
value	String	**Definition**: Dimension value. **Value range**: The value can contain 32 characters.
origin_value	String	**Definition**: Actual dimension information. **Range** The value can contain 1 to 1,024 characters.

Status code: 400

Table 6-484 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 404

Table 6-485 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Status code: 500

Table 6-486 Response body parameters

Parameter	Type	Description
error_code	String	Status codes customized by each cloud service when a request error occurs.
error_msg	String	Request error message.
request_id	String	Request ID.

Example Requests

```
/v2/{project_id}/instances/4270ff17-aba3-4138-89fa-820594c39755/agent-dimensions?offset=0&limit=10
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "dimensions" : [ {
    "name" : "disk",
    "value" : "2e84018fc8b4484b94e89aae212fe615",
    "origin_value" : "vda"
  }, {
    "name" : "disk",
    "value" : "6a1b2de69eeb9a037ea23de6b529394d",
    "origin_value" : "vdc"
  } ],
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
 "count" : 10
}
```

Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter verification failed.
404	Resource not found.
500	Internal system error.

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

7 API V3

7.1 Agent Statuses

7.1.1 Querying Agent Statuses in Batches

Function

This API is used to query the Agent (including the uniagent) statuses.

URI

POST /v3/{project_id}/agent-status/batch-query

Table 7-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: **1** Maximum: **64**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 7-2 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	Specifies the MIME type of a request body. The default type is **application/json; charset=UTF-8**. Default: **application/json; charset=UTF-8** Minimum: **1** Maximum: **64**
X-Auth-Token	No	String	Specifies the user token. It is a response to the API for obtaining a user token. This API is the only one that does not require authentication. The value of **X-Subject-Token** in the response header is the token. Minimum: **1** Maximum: **16384**

Table 7-3 Request body parameters

Parameter	Mandatory	Type	Description
instance_ids	Yes	Array of strings	Specifies the cloud server ID list. Array Length: **1 - 2000**
uniagent_status	No	String	Specifies the uniagent status. The value can be **none** (not installed), **running**, **silent**, or **unknown** (faulty). Enumeration values: • **none** • **running** • **silent** • **unknown**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
extension_name	No	String	Specifies the Agent name. If this parameter is not specified, all Agents are queried. Currently, only telescope can be queried. Enumeration values: • **telescope**
extension_status	No	String	Specifies the Agent status. If this parameter is not specified, all statuses are queried. The value can be **none** (not installed), **running**, **stopped**, **fault** (process exception), or **unknown** (connection exception). Enumeration values: • **none** • **running** • **stopped** • **fault** • **unknown**

Response Parameters

Status code: 200

Table 7-4 Response body parameters

Parameter	Type	Description
agent_status	Array of **AgentStatusInfo** objects	Specifies the Agent statuses. Array Length: **1 - 2000**

Table 7-5 AgentStatusInfo

Parameter	Type	Description
instance_id	String	Specifies the cloud server ID. **Regex Pattern:** ^[a-zA-Z0-9-]{1,64}$

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
uniagent_status	String	Specifies the uniagent status. The value can be **none** (not installed), **running**, **silent**, or **unknown** (faulty). Enumeration values: • **none** • **running** • **silent** • **unknown**
extensions	Array of **ExtensionInfo** objects	Specifies the Agent information list. Array Length: **1 - 10**

Table 7-6 ExtensionInfo

Parameter	Type	Description
name	String	Specifies the Agent name. Minimum: **1** Maximum: **64**
status	String	Specifies the Agent status. The value can be **none** (not installed), **running**, **stopped**, **fault** (process exception), or **unknown** (connection exception). Enumeration values: • **none** • **running** • **stopped** • **fault** • **unknown**
version	String	Specifies the Agent version. Minimum: **1** Maximum: **32**

Status code: 400

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 7-7 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 401

Table 7-8 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 403

Table 7-9 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 500

Table 7-10 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Example Requests

```
{
  "instance_ids" : [ "111111111111" ],
  "uniagent_status" : "none",
  "extension_name" : "telescope",
  "extension_status" : "none"
}
```

Example Responses

Status code: 200

Specifies the response body for querying the Agent statuses in batches.

```
{
  "agent_status" : [ {
    "instance_id" : "111111111111",
    "uniagent_status" : "none",
    "extensions" : [ {
      "name" : "telescope",
      "status" : "none",
      "version" : "2.5.6"
    } ]
  } ]
}
```

Status Codes

Status Code	Description
200	Specifies the response body for querying the Agent statuses in batches.
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

7.2 Agent maintenance tasks

7.2.1 Querying the Agent Maintenance Tasks

Function

This API is used to querying the Agent maintenance tasks.

Constraints

Currently, this API is not supported in the **LA-Buenos Aires1** and **LA-Lima1** regions. This API can only be used to query the Agent tasks within three months.

URI

GET /v3/{project_id}/agent-invocations

Table 7-11 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: **1** Maximum: **64**

Table 7-12 Query Parameters

Parameter	Mandatory	Type	Description
instance_id	No	String	Specifies the server ID. **Regex Pattern:** ^[a-zA-Z0-9-]{1,64}$
instance_type	No	String	Specifies the server type. The value can be **ECS** or **BMS**. Enumeration values: • **ECS** • **BMS**
invocation_id	No	String	Specifies the task ID. **Regex Pattern:** ^([0-9A-Za-z]){1}([0-9A-Za-z]|_|-)*$

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
invocation_type	No	String	Task type. The options are **INSTALL**, **UPDATE**, **ROLLBACK**, **RETRY**, **SET_REMOTE_INSTALLER**, and **REMOTE_INSTALL**. Enumeration values: • **INSTALL** • **UPDATE** • **ROLLBACK** • **RETRY** • **SET_REMOTE_INSTALLER** • **REMOTE_INSTALL**
invocation_target	No	String	Task object. The value can be **telescope**. Default: **telescope** Enumeration values: • **telescope**
offset	No	Long	Specifies the pagination offset. Minimum: **0** Maximum: **9999999999999** Default: **0**
limit	No	Integer	Specifies the number of records on each page. Minimum: **1** Maximum: **100** Default: **100**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Request Parameters

Table 7-13 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	Specifies the MIME type of a request body. The default type is **application/json; charset=UTF-8**. Default: **application/json; charset=UTF-8** Minimum: **1** Maximum: **64**
X-Auth-Token	No	String	Specifies the user token. It is a response to the API for obtaining a user token. This API is the only one that does not require authentication. The value of **X-Subject-Token** in the response header is the token. Minimum: **1** Maximum: **16384**

Response Parameters

Status code: 200

Table 7-14 Response body parameters

Parameter	Type	Description
invocations	Array of **InvocationInfo** objects	Specifies the task list. Array Length: **0 - 100**
count	Long	Specifies the total number of tasks in the task list. Minimum: **0** Maximum: **9999999999999**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 7-15 InvocationInfo

Parameter	Type	Description
invocation_id	String	Specifies the task ID. **Regex Pattern:** ^([0-9A-Za-z]){1}([0-9A-Za-z]|_|-)*$
instance_id	String	Specifies the server ID. **Regex Pattern:** ^[a-zA-Z0-9-]{1,64}$
instance_name	String	Specifies the server name. Minimum: **1** Maximum: **128**
instance_type	String	Specifies the server type. The value can be **ECS** or **BMS**. Enumeration values: • **ECS** • **BMS**
intranet_ips	Array of strings	Specifies the private IP address list. Array Length: **0 - 10**
elastic_ips	Array of strings	Specifies the EIP list. Array Length: **0 - 10**
invocation_type	String	Task type, which can be **INSTALL**, **UPDATE**, **ROLLBACK**, or **RETRY**. Enumeration values: • **INSTALL** • **UPDATE** • **ROLLBACK** • **RETRY**
invocation_status	String	Specifies the task status. The value can be **PENDING**, **RUNNING**, **TIMEOUT**, **FAILED**, **SUCCEEDED**, **CANCELED**, or **ROLLBACKED**. Enumeration values: • **PENDING** • **RUNNING** • **TIMEOUT** • **FAILED** • **SUCCEEDED** • **CANCELED** • **ROLLBACKED**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
invocation_target	String	Task object. The value can be **telescope**. Enumeration values: • **telescope**
create_time	Long	Specifies when the task was created. Minimum: **1111111111111** Maximum: **9999999999999**
update_time	Long	Specifies when the task was updated. Minimum: **1111111111111** Maximum: **9999999999999**
current_version	String	Specifies the current version of the Agent. Minimum: **1** Maximum: **64**
target_version	String	Specifies the target version. Minimum: **1** Maximum: **64**
result_msg	String	Task execution result information. Minimum: **1** Maximum: **5000**

Status code: 400

Table 7-16 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 401

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 7-17 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 403

Table 7-18 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 500

Table 7-19 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Example Requests

None

Example Responses

Status code: 200

OK

```
{
  "invocations" : [ {
    "invocation_id" : "invocationxxx001",
    "instance_id" : "instancexxx001",
    "instance_name" : "xxxx",
    "instance_type" : "ECS",
    "intranet_ips" : [ "10.xxx.xx.1" ],
    "elastic_ips" : [ "1.xx.xx.1" ],
    "invocation_type" : "INSTALL",
    "invocation_status" : "RUNNING",
    "invocation_target" : "telescope",
    "current_version" : "2.5.1",
    "target_version" : "2.6.1",
    "create_time" : 1678070008306,
    "update_time" : 1678070008306,
    "result_msg" : "xxx"
  } ],
  "count" : 1
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

Error Codes

See **Error Codes**.

7.2.2 Creating Agent maintenance Tasks in Batches

Function

This API is used to create Agent maintenance tasks in batches.

Constraints

Currently, this API is not supported in the **LA-Buenos Aires1** and **LA-Lima1** regions.

URI

POST /v3/{project_id}/agent-invocations/batch-create

Table 7-20 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: **1** Maximum: **64**

Request Parameters

Table 7-21 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	No	String	Specifies the MIME type of a request body. The default type is **application/json; charset=UTF-8**. Default: **application/json; charset=UTF-8** Minimum: **1** Maximum: **64**
X-Auth-Token	No	String	Specifies the user token. It is a response to the API for obtaining a user token. This API is the only one that does not require authentication. The value of **X-Subject-Token** in the response header is the token. Minimum: **1** Maximum: **16384**

Table 7-22 Request body parameters

Parameter	Mandatory	Type	Description
instance_ids	No	Array of strings	Specifies the server ID list. (This parameter is mandatory when the task type is **INSTALL** or **UPDATE**.) Array Length: **1 - 100**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
invocation_type	Yes	String	Task type. The options are **INSTALL**, **UPDATE**, **ROLLBACK**, **RETRY**, **SET_REMOTE_INSTALL_HOST**, and **REMOTE_INSTALL**. Enumeration values: • **INSTALL** • **UPDATE** • **ROLLBACK** • **RETRY** • **SET_REMOTE_INSTALL_HOST** • **REMOTE_INSTALL**
invocation_target	No	String	Specifies the task object. Only **telescope** is supported. Default: **telescope** Enumeration values: • **telescope**
invocation_ids	No	Array of strings	Specifies the task ID list. This parameter is mandatory when the task type is **ROLLBACK** or **RETRY**. Array Length: **1 - 100**
version_type	No	String	Specifies the version the Agent will be upgraded to. The value can be **BASIC_VERSION** or **ADVANCE_VERSION**. Enumeration values: • **BASIC_VERSION** • **ADVANCE_VERSION**
origin	No	String	Specifies the source that calls the Agent maintenance task APIs. **CES** indicates the Cloud Eye console, **APICOM_BMS** indicates Bare Metal Server (BMS), and **ADMIN_SERVER** indicates the O&M platform. Enumeration values: • **CES** • **APICOM_BMS** • **ADMIN_SERVER**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
version	No	String	Version number. Minimum: **0** Maximum: **64** **Regex Pattern:** ^([0-9A-Za-z]|_|-|\.)+$
remote_install_meta	No	Array of **RemoteInstallHostInfo** objects	Information about the server for remotely installing the Agent when a remote installation task is created. Array Length: **0 - 100**

Table 7-23 RemoteInstallHostInfo

Parameter	Mandatory	Type	Description
instance_name	No	String	Name of the server for remotely installing the Agent. Minimum: **1** Maximum: **128**
remote_ip	No	String	IP address of the server for remotely installing the Agent. **Regex Pattern:** ^(([0-9]|\.){1,15})$
user_name	No	String	Username for logging in to the server for remotely installing the Agent. Minimum: **1** Maximum: **16**
port	No	String	Port for logging in to the server for remotely installing the Agent. Minimum: **1** Maximum: **5**
password	No	String	Password for logging in to the server for remotely installing the Agent. Minimum: **1** Maximum: **3000**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Mandatory	Type	Description
remote_use_pem	No	Boolean	Whether a key pair is used to connect to the server for remotely installing the Agent. If the value is false, a password is used. Default: **false**

Response Parameters

Status code: 201

Table 7-24 Response body parameters

Parameter	Type	Description
invocations	Array of **BatchCreateInvocationInfo** objects	Specifies the information list of the created task. Array Length: **0 - 100**

Table 7-25 BatchCreateInvocationInfo

Parameter	Type	Description
instance_id	String	Server ID. **Regex Pattern:** ^[a-zA-Z0-9-]{1,64}$
invocation_id	String	Specifies the task ID. **Regex Pattern:** ^[a-zA-Z0-9-]{1,64}$
ret_status	String	Specifies the task result. The value can be **successful** or **error**. Enumeration values: • **successful** • **error**
error_code	String	Specifies the error code. **Regex Pattern:** ^(invocationmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **128**

Status code: 400

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 7-26 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 401

Table 7-27 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 403

Table 7-28 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Status code: 500

Table 7-29 Response body parameters

Parameter	Type	Description
error_code	String	Specifies the error code. **Regex Pattern:** ^(taskmgr\.[0-9]{4})$

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Parameter	Type	Description
error_msg	String	Specifies the error message. Minimum: **1** Maximum: **256**

Example Requests

```
{
  "instance_ids" : [ "instancexxx001", "instancexxx002" ],
  "invocation_type" : "INSTALL",
  "invocation_target" : "telescope"
}
```

Example Responses

Status code: 201

Created

```
[ {
  "instance_id" : "instancexxx001",
  "ret_status" : "successful"
}, {
  "instance_id" : "instancexxx002",
  "ret_status" : "error",
  "error_msg" : "do not meet the installation conditions"
} ]
```

Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

Error Codes

See **Error Codes**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

8 Permissions Policies and Supported Actions

8.1 Introduction

This chapter describes fine-grained permissions management for your Cloud Eye. If your Huawei Cloud account does not need individual IAM users, then you may skip over this chapter.

Policies: A type of fine-grained authorization mechanism that defines permissions required to perform operations on specific cloud resources under certain conditions. This mechanism allows for more flexible policy-based authorization, meeting requirements for secure access control. By default, new IAM users do not have any permissions assigned. You need to add a user to one or more groups, and assign permissions policies to these groups. The user then inherits permissions from the groups it is a member of. This process is called authorization. After authorization, the user can perform specified operations on Cloud Eye based on the permissions. For details, see **Permissions Management**.

You can grant users permissions by using roles and policies. A policy consists of permissions for an entire service. Users with such a policy assigned are granted all of the permissions required for that service. Policies define API-based permissions for operations on specific resources, allowing for more fine-grained, secure access control of cloud resources.

NOTE

If you want to allow or deny the access to an API, use policies for authorization.

An account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions. The permissions required for calling an API are determined by the actions supported by the API. Only users who have been granted permissions allowing the actions can call the API successfully. For example, if an IAM user queries the alarm rule list using an API, the user must have been granted permissions that allow the **ces:alarms:list** action.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Supported Actions

Cloud Eye provides system-defined policies that can be directly used in IAM. You can also create custom policies and use them to supplement system-defined policies, implementing more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- Permissions: Defined by actions in a custom policy.
- Actions: Added to a custom policy to control permissions for specific operations.
- Related actions: Actions on which a specific action depends to take effect. When assigning permissions for the action to a user, you also need to assign permissions for the dependent actions.
- Authorization Scope: A custom policy can be applied to IAM projects or enterprise projects or both. Policies that contain actions supporting both IAM and enterprise projects can be assigned to user groups and take effect in both IAM and Enterprise Management. Policies that only contain actions supporting IAM projects can be assigned to user groups and only take effect for IAM. Such policies will not take effect if they are assigned to user groups in Enterprise Management.
- APIs: REST APIs that can be called in a custom policy

Cloud Eye supports the following actions that can be defined in custom policies:

NOTE

√ indicates that the item is supported, and × indicates that the item is not supported.

Supported Actions of the API Version Management APIs

Supported Actions of the Metric Management API

Supported Actions of the Alarm Rule Management APIs

Supported Actions of the Monitoring Data Management APIs

Supported Actions of the Quota Management API

Supported Actions of the Event Monitoring API

8.2 Supported Actions of the API Version Management APIs

Permission	API	Action	IAM Project	Enterprise Project
Query all API versions supported by Cloud Eye.	GET /	ces:versions:get	√	×

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Permission	API	Action	IAM Project	Enterprise Project
Query a specified Cloud Eye API version.	GET /{api_version}	ces:versions:get	√	×

8.3 Supported Actions of the Metric Management API

Permission	API	Action	IAM Project	Enterprise Project
Query the metric list. You can specify the namespace, metric name, dimension, sorting order, start records, and the maximum number of records when using this API to query metrics.	GET /V1.0/{project_id}/metrics	ces:metrics:list	√	×

8.4 Supported Actions of the Alarm Rule Management APIs

Permission	API	Action	IAM Project	Enterprise Project
Query the alarm rule list. You can specify the paging parameters to limit the number of query results displayed on a page. You can also set the sorting order of query results.	GET /V1.0/{project_id}/alarms	ces:alarms:list	√	√
Query an alarm rule based on the alarm rule ID.	GET /V1.0/{project_id}/alarms/{alarm_id}	ces:alarms:get	√	√
Enable or disable an alarm rule.	PUT /V1.0/{project_id}/alarms/{alarm_id}/action	ces:alarmsOnOff:put	√	√
Delete an alarm rule.	DELETE /V1.0/{project_id}/alarms/{alarm_id}	ces:alarms:delete	√	√
Create an alarm rule.	POST /V1.0/{project_id}/alarms	ces:alarms:create	√	√

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

8.5 Supported Actions of the Monitoring Data Management APIs

Permission	API	Action	IAM Project	Enterprise Project
Query the monitoring data at a specified granularity for a specified metric in a specified period of time. You can specify the dimension of data to be queried.	GET /V1.0/{project_id}/metric-data?namespace={namespace}&metric_name={metric_name}&dim.{i}=key,value&from={from}&to={to}&period={period}&filter={filter}	ces:metricData:list	√	×
Add one or more pieces of custom metric monitoring data to solve the problem that the system metrics cannot meet specific service requirements.	POST /V1.0/{project_id}/metric-data	ces:metricData:create	√	×
Query the monitoring data of specified metrics within a specified time range and specified granularities in batches. At present, you can query the monitoring data of a maximum of 10 metrics in batches.	POST /V1.0/{project_id}/batch-query-metric-data	ces:metricData:list	√	×

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Permission	API	Action	IAM Project	Enterprise Project
Query the host configuration for a specified event type in a specified period of time. You can specify the dimension of data to be queried. (This API is provided for SAP Monitor to query the host configuration in the HANA scenario. In other scenarios, the host configuration cannot be queried with this API.)	GET /V1.0/{project_id}/event-data	ces:sapEventData:list	√	×

8.6 Supported Actions of the Quota Management API

Permission	API	Action	IAM Project	Enterprise Project
Query a resource quota and the used amount. Currently, the resource refers to alarm rules only.	GET /V1.0/{project_id}/quotas	ces:quotas:get	√	×

8.7 Supported Actions of the Event Monitoring API

Permission	API	Action	IAM Project	Enterprise Project
Report custom events.	POST /V1.0/{project_id}/events	ces:events:post	√	×

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

9 Common Parameters

9.1 Status Codes

- Normal

Returned Value	Description
200 OK	The results of GET and PUT operations are returned as expected.
201 Created	The results of the POST operation are returned as expected.
202 Accepted	The request has been accepted for processing.
204 No Content	The results of the DELETE operation are returned as expected.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter a username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server cannot find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server cannot be accepted by the client.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Returned Value	Description
407 Proxy Authentication Required	You must use the proxy server for authentication so that the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of a service error.
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 request is invalid.
503 Service Unavailable	Failed to complete the request. The service is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

9.2 Error Codes

Function

If an error occurs during API calling, the system returns error information. This section describes the error codes contained in the error information for Cloud Eye APIs.

Example Response

```
{
    "http_code":"403",
    "message": {
        "details":"Policy doesn't allow [ces:alarms:get] to be performed",
        "code":"403"
    }
}
```

Glossary

Glossary	Description
Cloud Eye	Cloud Eye
Built-in metric	Each service has its own built-in metrics and dimensions. For example, an ECS (SYS.ECS) supports **cpu_util**.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Glossary	Description
Metric	A metric consists of the namespace, dimension (optional), and metric name. A metric name solely does not identify any object.

Error Code Description

Module	HTTP Status Code	Error Code	Error Code Description	Error Message	Measure
Cloud Eye	500	ces.0007	Internal service error	Internal service error.	Contact technical support.
API	400	ces.0001	The request content cannot be empty.	The content must be specified.	Specify the request content.
	400	ces.0003	The project ID is left blank or is incorrect.	The tenant ID is left blank or incorrect.	Add or use the correct tenant ID.
	400	ces.0004	The API version is not specified.	The API version must be specified.	Specify the API version in the request URL.
	400	ces.0005	The API version is incorrect.	The API version is incorrect.	Use the correct API version.
	400	ces.0006	The paging address is incorrect.	The paging address is incorrect.	Use correct pagination information.
	403	ces.0009	System metrics cannot be added.	Adding SYS metric is not allowed	Use correct rights to add metrics.
	403	ces.0010	System metrics cannot be deleted.	Deleting SYS metric is not allowed	Use correct rights to delete metrics.
	400	ces.0011	The request is invalid.	The request is invalid.	Check the request.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Module	HTTP Status Code	Error Code	Error Code Description	Error Message	Measure
	400	ces.0013	The URL parameter is invalid or does not exist.	The URL parameter is invalid or does not exist.	Check the URL parameter.
	400	ces.0014	Some content in the message body is incorrect.	Some content in message body is not correct.	Check the request body parameters.
	401	ces.0015	Authentication fails or valid authentication information is not provided.	Authentication fails or the authentication information is not provided.	Check whether the user name or password (or AK or SK) for obtaining the token is correct.
	404	ces.0016	The requested resource does not exist.	The requested resource does not exist.	Check whether the requested resource exists.
	403	ces.0017	The authentication information is incorrect or the service invoker does not have sufficient rights.	The authentication information is incorrect or the service invoker does not have sufficient rights.	Check whether the user name or password (or AK or SK) or the user rights for obtaining the token are correct.
Cassandra	500	ces.0008	Database error	Database error.	Contact technical support.
Zookeeper	500	ces.0021	Internal locking error	Internal locking error	Contact technical support.
Blueflood	500	ces.0019	The metric processing engine is abnormal.	The metric processing engine is abnormal.	Contact technical support.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Module	HTTP Status Code	Error Code	Error Code Description	Error Message	Measure
Alarm	400	ces.0002	The alarm ID cannot be left blank.	The alarm ID must be specified.	Specify the alarm ID.
	403	ces.0018	The number of alarm rules created exceeds the quota.	The number of alarms exceeds the quota	Apply for a higher alarm quota.
	400	ces.0028	The metric and notification type do not match when an alarm rule is created.	The metric does not support the alarm action type.	Modify the metric or notification type according to the parameter description to make them match.

9.3 Obtaining a Project ID

Scenarios

A project ID is required for some URLs when an API is called. Therefore, you need to obtain a project ID in advance. Two methods are available:

- **Obtain the Project ID by Calling an API**
- **Obtain the Project ID from the Console**

Obtain the Project ID by Calling an API

You can obtain a project ID by calling the API used to **query projects based on specified criteria**.

The API used to obtain a project ID is GET https://{Endpoint}/v3/projects. {Endpoint} is the IAM endpoint and can be obtained from Regions and Endpoints. For details about API authentication, see **Authentication**.

The following is an example response. The value of **id** is the project ID.

```
{
    "projects": [
        {
            "domain_id": "65ewtrgaggshhk1223245sghjlse684b",
            "is_domain": false,
            "parent_id": "65ewtrgaggshhk1223245sghjlse684b",
            "name": "project_name",
            "description": "",
```

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

```
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4adasfjljaaaakla12334jklga9sasfg"
            },
            "id": "a4adasfjljaaaakla12334jklga9sasfg",
            "enabled": true
        }
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

Obtain a Project ID from the Console

To obtain a project ID from the console, perform the following operations:

1. Log in to the **management console**.
2. Click the username and select **My Credentials** from the drop-down list. On the **API Credentials** page, view the project ID in the project list.

10 Appendix

10.1 Services Interconnected with Cloud Eye

Category	Service	Namespace	Dimension	Reference
Compute	Elastic Cloud Server	SYS.ECS	Key: instance_id Value: ECSs	Basic ECS metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	Elastic Cloud Server – OS Monitoring	AGT.ECS	• Key: instance_id Value: ECSs • Key: roce Value: RoCE • Key: disk Value: Disk • Key: mount_point Value: Mount Point • Key: gpu Value: GPU • Key: npu Value: NPU • Key: davp Value: DAVP • Key: network_interface_card Value: NICs • Key: proc Value: Process	**OS monitoring metrics supported by ECSs with the Agent installed**
	Elastic Cloud Server – Process Monitoring	AGT.ECS	• Key: instance_id Value: ECSs • Key: pname Value: Process • Key: pid Value: ProcessIDs	**Process monitoring metrics supported by ECSs with the Agent installed**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	Bare Metal Server	SERVICE.BMS	• Key: instance_id Value: ECSs • Key: disk_error_monitor Value: Disk Error Monitor • Key: proc Value: Process • Key: pname Value: Process • Key: pid Value: ProcessIDs • Key: disk Value: Disk • Key: mount_point Value: Mount Point • Key: gpu Value: GPU • Key: npu Value: NPU • Key: roce Value: RoCE • Key: network_interface_card Value: NICs	**OS monitoring metrics supported by BMSs with the Agent installed**
	Auto Scaling	SYS.AS	Key: AutoScalingGroup Value: AS Groups	**AS metrics**
	FunctionGraph	SYS.FunctionGraph	Key: package-functionname Value: Functions	**FunctionGraph metrics**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
Storage	Elastic Volume Service (attached to an ECS or BMS)	SYS.EVS	Key: disk_name Value: Disks	**EVS metrics**
	Object Storage Service	SYS.OBS	Key: bucket_name Value: Bucket Name	**OBS metrics**
	Scalable File Service Turbo	SYS.EFS	Key: efs_instance_id Value: instance	**SFS Turbo metrics**
	Cloud Backup and Recovery	SYS.CBR	Key: instance_id Value: Vault	**CBR metrics**
Networking	Virtual Private Cloud	SYS.VPC	• Key: publicip_id Value: Elastic IPs • Key: bandwidth_id Value: Bandwidths	**VPC metrics**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	Elastic Load Balance	SYS.ELB	• Key: lb_instance_id Value: ID of a classic load balancer • Key: lbaas_instance_id Value: ID of a shared load balancer • Key: lbaas_listener_id Value: ID of a shared load balancer listener • Key: lbaas_pool_id Value: Backend Server Groups • Key: available_zone Value: Availability Zones	**ELB metrics**
	NAT Gateway	SYS.NAT	Key: nat_gateway_id Value: Public NAT Gateway	**NAT Gateway metrics**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	Enterprise Router	SYS.ER	• Key: er_instance_id Value: Enterprise Router • Key: er_attachment_id Value: Attachment	ER metrics
	Virtual Private Network	SYS.VPN	Key: evpn_connection_id Value: S2C VPN Connection	VPN metrics
	Direct Connect	SYS.DCAAS	• Key: direct_connect_id Value: connection • Key: history_direct_connect_id Value: historical connection	Direct Connect metrics
	Global Accelerator	SYS.GA	• Key: ga_accelerator_id Value: Global Accelerators • Key: ga_listener_id Value: Listeners	Global Accelerator metrics
Middleware	Distributed Message Service	SYS.DMS	For details, see the information in the right column.	DMS for Kafka metrics DMS for RocketMQ metrics DMS for RocketMQ metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	API Gateway	SYS.APIC	For details, see the information in the right column.	API Gateway metrics
	Distributed Cache Service	SYS.DCS	• Key: dcs_instance_id Value: DCS Redis Instances • Key: dcs_cluster_redis_node Value: Redis Server • Key: dcs_cluster_proxy_node Value: Proxies • Key: dcs_cluster_proxy2_node Value: Proxies (4.0 and later) • Key: dcs_memcached_instance_id Value: DCS Memcached Instances	DCS metrics
Databases	Relational Database Service	SYS.RDS	For details, see the information in the right column.	RDS for MySQL metrics RDS for PostgreSQL metrics RDS for MariaDB metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	Document Database Service	SYS.DDS	• Key: mongodb_node_id Value: Document Database Node • Key: mongodb_instance_id Value: Document Database Instance	DDS metrics
	Distributed Database Middleware	SYS.DDMS	Key: node_id Value: DDM Nodes	DDM metrics
	GeminiDB	SYS.NoSQL	For details, see the information in the right column.	GeminiDB Cassandra metrics GeminiDB Influx metrics GeminiDB Redis metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	TaurusDB	SYS.GAUSSDB	• Key: gaussdb_mysql_instance_id Value: TaurusDB Instances • Key: gaussdb_mysql_node_id Value: TaurusDB Nodes • Key: dbproxy_instance_id Value: Database Proxy Instance • Key: dbproxy_node_id Value: Database Proxy Node	**TaurusDB metrics**
	Data Replication Service	SYS.DRS	Key: instance_id Value: DRS Instance	**DRS metrics**
Migration	Cloud Data Migration	SYS.CDM	Key: instance_id Value: Instances	**CDM metrics**
EI	Cloud Search Service	SYS.ES	Key: cluster_id Value: CSS cluster	**CSS metrics**

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	ModelArts	SYS.ModelArts	• Key: service_id Value: Service • Key: model_id Value: Model	ModelArts metrics
	Data Lake Insight	SYS.DLI	• Key: queue_id Value: queue instance • Key: flink_job_id Value: Flink job	DLI metrics
	Data Warehouse Service	SYS.DWS	• Key: datastore_id Value: Data Warehouse Service • Key: dws_instance_id Value: Data Warehouse Nodes	DWS metrics
Security and Compliance	Web Application Firewall	SYS.WAF	• Key: instance_id Value: Dedicated WAF Instance • Key: waf_instance_id Value: Domains	WAF metrics
	Database Security Service	SYS.DBSS	Key: audit_id Value: DBSS	DBSS metrics
	Cloud Bastion Host	SYS.CBH	Key: server_id Value: CBH	CBH metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Category	Service	Namespace	Dimension	Reference
	Host Security Service	SYS.HSS	Key: host_id Value: Server	HSS metrics
	Cloud Firewall	SYS.CFW	Key: fw_instance_id Value: CFW Instances	CFW metrics
Business Applications	Workspace	SYS.Workspace	Key: instance_id Value: Workspace	Workspace metrics

10.2 Events Supported by Event Monitoring

NOTE

The name of a resource that supports event reporting can contain a maximum of 128 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). If it contains other characters, the event may fail to be reported to Cloud Eye.

Table 10-1 Elastic Cloud Server (ECS)

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
ECS	Restart triggered due to hardware fault	startAutoRecovery	Major	ECSs on a faulty host would be automatically migrated to another properly-running host. During the migration, the ECSs was restarted.	Wait for the event to end and check whether services are affected.	Services may be interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Restart completed due to hardware failure	endAutoRecovery	Major	The ECS was recovered after the automatic migration.	This event indicates that the ECS has recovered and been working properly.	None
	Auto recovery timeout (being processed on the backend)	faultAutoRecovery	Major	Migrating the ECS to a normal host timed out.	Migrate services to other ECSs.	Services are interrupted.
	GPU link fault	GPULinkFault	Critical	The GPU of the host running the ECS was faulty or recovering from a fault.	Deploy service applications in HA mode. After the GPU fault is rectified, check whether services are restored.	Services are interrupted.
	ECS deleted	deleteServer	Major	The ECS was deleted: • on the management console. • by calling APIs.	Check whether the deletion was performed intentionally by a user.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	ECS restarted	rebootServer	Minor	The ECS was restarted: • on the management console. • by calling APIs.	Check whether the restart was performed intentionally by a user. • Deploy service applications in HA mode. • After the ECS starts up, check whether services recover.	Services are interrupted.
	ECS stopped	stopServer	Minor	The ECS was stopped: • on the management console. • by calling APIs. **NOTE** The ECS is stopped only **after CTS is enabled**.	• Check whether the operation was intentionally performed by a user. • Deploy service applications in HA mode. • After the ECS starts up, check whether services recover.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	NIC deleted	deleteNic	Major	The ECS NIC was deleted: • on the management console. • by calling APIs.	• Check whether the deletion was performed intentionally by a user. • Deploy service applications in HA mode. • After the NIC is deleted, check whether services recover.	Services may be interrupted.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	ECS resized	resizeServer	Minor	The ECS specifications were modified: • on the management console. • by calling APIs.	• Check whether the operation was performed by a user. • Deploy service applications in HA mode. • After the ECS is resized, check whether services have recovered.	Services are interrupted.
	GuestOS restarted	RestartGuestOS	Minor	The guest OS was restarted.	Contact O&M personnel.	Services may be interrupted.
	ECS failure caused by system faults	VMFaultsByHostProcessExceptions	Critical	The host where the ECS resides is faulty. The system will automatically try to start the ECS.	After the ECS is started, check whether this ECS and services on it can run properly.	The ECS is faulty.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Startup failure	faultPowerOn	Major	The ECS failed to start.	Start the ECS again. If the problem persists, contact O&M personnel.	The ECS cannot start.
	Host breakdown risk	hostMayCrash	Major	The host where the ECS resides may break down, and the risk cannot be prevented through live migration due to some reasons.	Migrate services running on the ECS first and delete or stop the ECS. Start the ECS only after the O&M personnel eliminate the risk.	The host may break down, causing service interruption.
	Scheduled migration completed	instance_migrate_completed	Major	Scheduled ECS migration is completed.	Wait until the ECSs become available and check whether services are affected.	Services may be interrupted.
	Scheduled migration being executed	instance_migrate_executing	Major	ECSs are being migrated as scheduled.	Wait until the event is complete and check whether services are affected.	Services may be interrupted.
	Scheduled migration canceled	instance_migrate_canceled	Major	Scheduled ECS migration is canceled.	None	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Scheduled migration failed	instance_migrate_failed	Major	ECSs failed to be migrated as scheduled.	Contact O&M personnel.	Services are interrupted.
	Scheduled migration to be executed	instance_migrate_scheduled	Major	ECSs will be migrated as scheduled.	Clarify the impact on services during the execution window.	None
	Scheduled specification modification failed	instance_resize_failed	Major	Specifications failed to be modified as scheduled.	Contact O&M personnel.	Services are interrupted.
	Scheduled specification modification completed	instance_resize_completed	Major	Scheduled specifications modification is completed.	None	None
	Scheduled specification modification being executed	instance_resize_executing	Major	Specifications are being modified as scheduled.	Wait until the event is completed and check whether services are affected.	Services are interrupted.
	Scheduled specification modification canceled	instance_resize_canceled	Major	Scheduled specifications modification is canceled.	None	None
	Scheduled specification modification to be executed	instance_resize_scheduled	Major	Specifications will be modified as scheduled.	Check the impact on services during the execution window.	None
	Scheduled redeployment to be executed	instance_redeploy_scheduled	Major	ECSs will be redeployed on new hosts as scheduled.	Check the impact on services during the execution window.	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Scheduled restart to be executed	instance_reboot_scheduled	Major	ECSs will be restarted as scheduled.	Check the impact on services during the execution window.	None
	Scheduled stop to be executed	instance_stop_scheduled	Major	ECSs will be stopped as scheduled as they are affected by underlying hardware or system O&M.	Check the impact on services during the execution window.	None
	Live migration started	liveMigrationStarted	Major	The host where the ECS is located may be faulty. Live migrate the ECS in advance to prevent service interruptions caused by host breakdown.	Wait for the event to end and check whether services are affected.	Services may be interrupted for less than 1s.
	Live migration completed	liveMigrationCompleted	Major	The live migration is complete, and the ECS is running properly.	Check whether services are running properly.	None
	Live migration failure	liveMigrationFailed	Major	An error occurred during the live migration of an ECS.	Check whether services are running properly.	There is a low probability that services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	ECC uncorrectable error alarm generated on GPU SRAM	SRAMUncorrectableEccError	Major	There are ECC uncorrectable errors generated on GPU SRAM.	If services are affected, submit a service ticket.	The GPU hardware may be faulty. As a result, the SRAM is faulty, and services exit abnormally.
	FPGA link fault	FPGALinkFault	Critical	The FPGA of the host running the ECS was faulty or recovering from a fault.	Deploy service applications in HA mode. After the FPGA fault is rectified, check whether services are restored.	Services are interrupted.
	Scheduled redeployment to be authorized	instance_redeploy_inquiring	Major	As being affected by underlying hardware or system O&M, ECSs will be redeployed on new hosts as scheduled.	Authorize scheduled redeployment.	None
	Local disk replacement canceled	localdisk_recovery_canceled	Major	Local disk failure	None	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Local disk replacement to be executed	localdisk_recovery_scheduled	Major	Local disk failure	Clarify the impact on services during the execution window.	None
	Xid event alarm generated on GPU	commonXidError	Major	A Xid event alarm was generated on the GPU.	If services are affected, submit a service ticket.	The GPU hardware, driver, and application problems lead to Xid events, which may interrupt services.
	nvidia-smi suspended	nvidiaSmiHangEvent	Major	nvidia-smi timed out.	If services are affected, submit a service ticket.	The driver may report an error during service running.
	NPU: uncorrectable ECC error	UncorrectableEccErrorCount	Major	There are uncorrectable ECC errors on the NPU.	If services are affected, replace the NPU with another one.	Services may be interrupted.
	Scheduled redeployment canceled	instance_redeploy_canceled	Major	As being affected by underlying hardware or system O&M, ECSs will be redeployed on new hosts as scheduled.	None	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Scheduled redeployment being executed	instance_redeploy_executing	Major	As being affected by underlying hardware or system O&M, ECSs will be redeployed on new hosts as scheduled.	Wait until the event is complete and check whether services are affected.	Services are interrupted.
	Scheduled redeployment completed	instance_redeploy_completed	Major	As being affected by underlying hardware or system O&M, ECSs will be redeployed on new hosts as scheduled.	Wait until the redeployed ECSs are available and check whether services are affected.	None
	Scheduled redeployment failed	instance_redeploy_failed	Major	As being affected by underlying hardware or system O&M, ECSs will be redeployed on new hosts as scheduled.	Contact O&M personnel.	Services are interrupted.
	Local disk replacement to be authorized	localdisk_recovery_inquiring	Major	Local disks are faulty.	Authorize local disk replacement.	Local disks are unavailable.
	Local disks being replaced	localdisk_recovery_executing	Major	Local disk failure	Wait until the local disks are replaced and check whether the local disks are available.	Local disks are unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Local disks replaced	localdisk_recovery_completed	Major	Local disks are faulty.	Wait until the services are running properly and check whether local disks are available.	None
	Local disk replacement failed	localdisk_recovery_failed	Major	Local disks are faulty.	Contact O&M personnel.	Local disks are unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	GPU throttle alarm	gpuClocksThrottleReasonsAlarm	Informational	1. The GPU power may exceed the maximum operating power threshold (continuous full load). The clock frequency automatically decreases to prevent the GPU from being damaged. 2. The GPU temperature may exceed the maximum operating temperature threshold (continuous full load). The clock frequency automatically decreases to reduce heat. 3. The GPU may remain idle, with the clock frequency automatically decreasing to reduce power consumption.	Check whether the clock frequency decrease is caused by hardware faults. If yes, transfer it to the hardware team.	The GPU slows down, resulting in less powerful compute.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
				4. Hardware faults may cause a decrease in clock frequency.		
	Pending page retirement for GPU DRAM ECC	gpuRetiredPagesPendingAlarm	Major	1. An ECC error occurred on the hardware. DRAM pages need to be retired. 2. An uncorrectable ECC error occurred on the GPU memory page and the page needs to be retired. However, the page is suspended and has not been retired yet.	1. View the event details and check whether the value of **retired_pages.pending** is **yes**. 2. Restart the GPU for automatic retirement.	The GPU cannot work properly.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Pending row remapping for GPU DRAM ECC	gpuRemappedRowsAlarm	Major	Some rows in the GPU memory have errors and need to be remapped. The faulty rows must be mapped to standby resources.	1. View the event metric "RemappedRow" to check if there are any rows that have been remapped. 2. Restart the GPU for automatic retirement.	The GPU cannot work properly.
	Insufficient resources for GPU DRAM ECC row remapping	gpuRowRemapperResourceAlarm	Major	1. This event occurs on GPUs (Ampere and later architectures). 2. The standby GPU memory row resources are exhausted, so row remapping cannot be continued.	Transfer the issue to the hardware team.	The GPU cannot work properly.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Correctable GPU DRAM ECC error	gpuDRAMCorrectableEccError	Major	1. This event occurs on GPUs (Ampere and later architectures). 2. A correctable ECC error occurs in the DRAM of the GPU. However, the ECC mechanism can automatically rectify the error and programs are not affected.	1. View the event metric "ecc.errors.corrected.volatile" to check whether there are any correctable ECC error values. 2. Restart the GPU for automatic retirement.	The GPU may not work properly.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Uncorrectable GPU DRAM ECC error	gpuDRAMUncorrectableEccError	Major	1. This event occurs on GPUs (Ampere and later architectures). 2. An uncorrectable ECC error occurs in the DRAM of the GPU. This error cannot be automatically corrected using the ECC mechanism. The verification process affects system stability and may cause program crashes.	1. View the event metric "ecc.errors.uncorrected.volatile" to check whether there are any uncorrectable ECC error values. 2. Restart the GPU for automatic retirement.	The GPU may not work properly.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Inconsistent GPU kernel versions	gpuKernelVersionInconsistencyAlarm	Major	Inconsistent GPU kernel versions. During driver installation, the GPU driver is compiled based on the kernel at that time. If the kernel versions are identified inconsistent, the kernel has been customized after the driver installation. In this case, the driver would become unavailable and needs to be reinstalled.	1. Run the following commands to rectify the issue: **rmmod nvidia_drm** **rmmod nvidia_modeset** **rmmod nvidia** Then, run **nvidia-smi**. If the command output is normal, the issue has been rectified. 2. If the preceding solution does not work, rectify the fault by referring to **Why Is the GPU Driver**	The GPU cannot work properly.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
					Unavailable?	
	GPU monitoring dependency not met	gpuCheckEnvFailedAlarm	Major	The plug-in cannot identify the GPU driver library path.	1. Check whether the driver is installed. 2. Check whether the driver installation directory has been customized. The driver needs to be installed in the default installation directory **/usr/bin/**.	Collection failure of GPU monitoring metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Initialization failure of the GPU monitoring driver library	gpuDriverInitFailedAlarm	Major	The GPU driver is unavailable.	Run **nvidia-smi** to check whether the driver is unavailable. If the driver is unavailable, reinstall the driver by referring to **Manually Installing a Tesla Driver on a GPU-accelerated ECS**.	Collection failure of GPU monitoring metrics

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	Initialization timeout of the GPU monitoring driver library	gpuDriverInitTAlarm	Major	The GPU driver initialization timed out (exceeding 10s).	1. If the driver is not installed, install it by referring to **Manually Installing a Tesla Driver on a GPU-accelerated ECS**. 2. If the driver is installed, run **nvidia-smi** to check whether the driver is availabl e. If the driver is unavailable, reinstall the driver by referring to **Manually Installing a Tesla Driver on a GPU-**	Collection failure of GPU monitoring metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
					accelerated ECS. 3. If the driver is properly installed, check whether the high-performance mode is enabled. If not, run **nvidia-smi -pm 1** to enable it. P0 indicates the high-performance mode.	

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	GPU metric collection timeout	gpuCollectMetricTimeoutAlarm	Major	The GPU metric collection timed out (exceeding 10s).	1. If the library API timed out, run **nvidia-smi** to check whether the driver is availabl e. If the driver is unavaila ble, reinstall the driver by referring to **Manual ly Installin g a Tesla Driver on a GPU-accelera ted ECS**. 2. If the comma nd executio n timed out, check the system logs and determi ne whether there is an issue	GPU monitori ng metric data is missing. As a result, subsequ ent metrics may fail to be collected .

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
					with the system.	
	GPU handle lost	gpuDeviceHandleLost	Major	The GPU metric information cannot be obtained, and the GPU may be lost.	1. Run **nvidia-smi** to check whether there are any errors reported. 2. Run **nvidia-smi -L** to check whether the number of GPUs is the same as the server specifications. 3. Submit a service ticket to contact on-call support.	All metrics of the GPU are lost.
	Failed to listen to the XID of the GPU.	gpuDeviceXidLost	Major	Failed to listen to the XID metric.	1. Check whether the GPU is lost or damaged. 2. Submit a service ticket to contact on-call support.	Failed to obtain XID-related metrics of the GPU.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	ReadOnly issues in OS	ReadOnlyFileSystem	Critical	The file system %s is read-only.	Check the disk health status.	The files cannot be written.
	NPU: driver and firmware not matching	NpuDriverFirmwareMismatch	Major	The NPU's driver and firmware do not match.	Obtain the matched version from the Ascend official website and reinstall it.	NPUs cannot be used.
	NPU: Docker container environment check	NpuContainerEnvSystem	Major	Docker was unavailable.	Check if Docker is normal.	Docker cannot be used.
			Major	The container plug-in Ascend-Docker-Runtime was not installed.	Install the container plug-in Ascend-Docker-Runtime. Or, the container cannot use Ascend cards.	NPUs cannot be attached to Docker containers.
			Major	IP forwarding was not enabled in the OS.	Check the **net.ipv4.ip_forward** configuration in the **/etc/sysctl.conf** file.	Docker containers experience network communication problems.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
			Major	The shared memory of the container was too small.	The default shared memory is 64 MB, which can be modified as needed. Method 1 Modify the **default-shm-size** field in the **/etc/docker/daemon.json** configuration file. Method 2 Use the **--shm-size** parameter in the **docker run** command to set the shared memory size of a container.	Distributed training will fail due to insufficient shared memory.
	NPU: RoCE NIC down	RoCELinkStatusDown	Major	The RoCE link of NPU card %d was down.	Check the NPU RoCE network port status.	The NPU NIC becomes unavailable.
	NPU: RoCE NIC health status abnormal	RoCEHealthStatusError	Major	The RoCE network health status of NPU %d was abnormal.	Check the health status of the NPU RoCE NIC.	The NPU NIC becomes unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	NPU: RoCE NIC configuration file **/etc/hccn.conf** not found	HccnConfNotExisted	Major	The RoCE NIC configuration file **/etc/hccn.conf** was not found.	Check whether the **/etc/hccn.conf** NIC configuration file can be found.	The RoCE NIC is unavailable.
	GPU: basic components abnormal	GpuEnvironmentSystem	Major	The **nvidia-smi** command was abnormal.	Check whether the GPU driver is normal.	The GPU driver is unavailable.
			Major	The nvidia-fabricmanager version was inconsistent with the GPU driver version.	Check the GPU driver version and nvidia-fabricmanager version.	The nvidia-fabricmanager cannot work properly, affecting GPU usage.
			Major	The container plug-in nvidia-container-toolkit was not installed.	Install the container plug-in nvidia-container-toolkit.	GPUs cannot be attached to Docker containers.
	Local disk attachment inspection	MountDiskSystem	Major	The **/etc/fstab** file contains invalid UUIDs.	Ensure that the UUIDs in the **/etc/fstab** configuration file are correct. Or, the server may fail to be restarted.	The disk attachment process fails, preventing the server from restarting.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
	GPU: incorrectly configured dynamic route for Ant series server	GpuRouteConfigError	Major	The dynamic route of the NIC %s of an Ant series server was not configured or was incorrectly configured. CMD [ip route]: %s | CMD [ip route show table all]: %s.	Configure the RoCE NIC route correctly.	The NPU network communication will be interrupted.
	NPU: RoCE port not split	RoCEUdpConfigError	Major	The RoCE UDP port was not split.	Check the RoCE UDP port configuration on the NPU.	The communication performance of NPUs is affected.
	Warning of automatic system kernel upgrade	KernelUpgradeWarning	Major	Warning of automatic system kernel upgrade. Old version: %s; new version: %s.	System kernel upgrade may cause AI software exceptions. Check the system update logs and prevent the server from restarting.	The AI software may be unavailable.
	NPU environment command detection	NpuToolsWarning	Major	The hccn_tool was unavailable.	Check whether the NPU driver is normal.	The IP address and gateway of the RoCE NIC cannot be configured.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Event Name	Event ID	Event Severity	Description	Solution	Impact
			Major	The npu-smi was unavailable.	Check whether the NPU driver is normal.	NPUs cannot be used.
			Major	The ascend-dmi was unavailable.	Check whether ToolBox is properly installed.	ascend-dmi cannot be used for performance analysis.
	Warning of an NPU driver exception	NpuDriverAbnormalWarning	Major	The NPU driver was abnormal.	Reinstall the NPU driver.	NPUs cannot be used.

NOTE

Automatic recovery: If the hardware where an ECS is located is faulty, the system automatically migrates it to a normal physical host. The ECS will restart during the migration.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-2 Bare metal server (BMS)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
BMS	SYS.BMS	ECC uncorrectable error alarm generated on GPU SRAM	SRAMUncorrectableEccError	Major	There are ECC uncorrectable errors generated on GPU SRAM.	If services are affected, submit a service ticket.	The GPU hardware may be faulty. As a result, the SRAM is faulty, and services exit abnormally.
		BMS restarted	osReboot	Major	The BMS instance is restarted. • on the management console. • by calling APIs.	• Deploy service applications in HA mode. • After the BMS is restarted, check whether services recover.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		BMS unexpected restart	serverReboot	Major	The BMS instance restarts unexpectedly. • OS faults. • hardware faults.	• Deploy service applications in HA mode. • After the BMS is restarted, check whether services recover.	Services are interrupted.
		BMS stopped	osShutdown	Major	The BMS instance is stopped. • on the management console. • by calling APIs.	• Deploy service applications in HA mode. • After the BMS is restarted, check whether services recover.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		BMS unexpected shutdown	serverShutdown	Major	The BMS stops unexpectedly due to: • unexpected power-off. • hardware faults.	• Deploy service applications in HA mode. • After the BMS is restarted, check whether services recover.	Services are interrupted.
		Network disconnection	linkDown	Major	The BMS network is disconnected. Possible causes are as follows: • The BMS was stopped or restarted unexpectedly. • The switch was faulty. • The gateway was faulty.	• Deploy service applications in HA mode. • After the BMS is restarted, check whether services recover.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		PCIe error	pcieError	Major	The PCIe device or main board on the BMS is faulty. Possible causes are as follows: • main board faults. • PCIe device faults.	• Deploy service applications in HA mode. • After the BMS is started, check whether services recover.	The network or disk read/write services are affected.
		Disk fault	diskError	Major	The disk of the BMS is faulty. Possible causes are as follows: • disk backplane faults. • disk faults.	• Deploy service applications in HA mode. • After the fault is rectified, check whether services recover.	Data read/write services are affected, or the BMS cannot be started.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		EVS error	storageError	Major	The BMS failed to connect to EVS disks. Possible causes are as follows: • The SDI card was faulty. • Remote storage devices were faulty.	• Deploy service applications in HA mode. • After the fault is rectified, check whether services recover.	Data read/write services are affected, or the BMS cannot be started.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Inforom alarm generated on GPU	gpuInfoROM Alarm	Major	The infoROM of the GPU is abnormal. ROM is an important storage area of the GPU firmware and stores key data loaded during startup.	Non-critical services can continue to use the GPU. For critical services, submit a service ticket to resolve this issue. 1. Restart the VM and check that the issue is not caused by a temporary cache or communication error. 2. If the fault persists after the restart, the hardware may be faulty. Submit	Services will not be affected. If ECC errors are reported on a GPU, faulty pages may not be automatically retired and services are affected.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						a service ticket to check whether the GPU needs to be replaced.	

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Double-bit ECC alarm generated on GPU	doubleBitEccError	Major	A double-bit error occurs in the ECC memory of the GPU. The ECC cannot correct the error, which may cause program breakdown.	1. If services are interrupted, restart the services. 2. If services cannot be restarted, restart the VM where services are running. 3. If services still cannot be restored, submit a service ticket.	Services may be interrupted. After faulty pages are retired, the GPU can continue to be used.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Too many retired pages	gpuTooManyRetiredPagesAlarm	Major	An ECC page retirement error occurred on the GPU. When an uncorrectable ECC error occurs on a GPU memory page, the GPU marks the page as retired.	If services are affected, submit a service ticket.	If there are too many ECC errors, services may be affected. 1. If there are too many retired pages and the GPU memory capacity decreases too much, the system performance ma

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
							y deteriorate. 2. If there are too many retired pages and the GPU memory capacity decreases too much, the system may run unstably.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		ECC alarm generated on GPU A100	gpuA100EccAlarm	Major	An ECC error occurred on the GPU.	1. If services are interrupted, restart the services. 2. If services cannot be restarted, restart the VM where services are running. 3. If services still cannot be restored, submit a service ticket.	Services may be interrupted. After faulty pages are retired, the GPU can continue to be used.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		ECC alarm generated on GPU Ant1	gpuAnt1EccAlarm	Major	An ECC error occurred on GPU.	1. If services are interrupted, restart the services to restore. 2. If services cannot be restarted, restart the VM where services are running. 3. If services still cannot be restored, submit a service ticket.	Services may be interrupted. After faulty pages are retired, the GPU can continue to be used.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GPU ECC memory page retirement failure	eccPageRetirementRecordingFailure	Major	Automatic page retirement failed due to ECC errors.	1. If services are interrupted, restart the services to restore. 2. If services cannot be restarted, restart the VM where services are running. 3. If services still cannot be restored, submit a service ticket.	Services may be interrupted, and memory page retirement fails. As a result, services cannot no longer use the GPU.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GPU ECC page retirement alarm generated	eccPageRetirementRecordingEvent	Minor	Memory pages are automatically retired due to ECC errors.	1. If services are interrupted, restart the services. 2. If services cannot be restarted, restart the VM where services are running. 3. If services still cannot be restored, submit a service ticket.	Generally, this alarm is generated together with the ECC error alarm. If this alarm is generated independently, services are not affected.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Too many single-bit ECC errors on GPU	highSingleBitEccErrorRate	Major	There are too many single-bit errors occurring in the ECC memory of the GPU.	1. If services are interrupted, restart the services to restore. 2. If services cannot be restarted, restart the VM where services are running. 3. If services still cannot be restored, submit a service ticket.	Single-bit errors can be automatically rectified and do not affect GPU-related applications.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GPU card not found	gpuDriverLinkFailureAlarm	Major	A GPU link is normal, but it cannot be found by the NVIDIA driver.	1. You are advised to try restarting the VM to restore your services. 2. If services still cannot be restored, submit a service ticket.	The GPU cannot be found.
		GPU link faulty	gpuPcieLinkFailureAlarm	Major	GPU hardware information cannot be queried through lspci due to a GPU link fault.	If services are affected, submit a service ticket.	The driver cannot use the GPU.
		VM GPU lost	vmLostGpuAlarm	Major	The number of GPUs on the VM is less than the number specified in the specifications.	If services are affected, submit a service ticket.	GPUs get lost.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GPU memory page faulty	gpuMemoryPageFault	Major	The GPU memory page is faulty, which may be caused by applications, drivers, or hardware.	If services are affected, submit a service ticket.	The GPU hardware may be faulty. As a result, the GPU memory is faulty, and services exit abnormally.
		GPU image engine faulty	graphicsEngineException	Major	The GPU image engine is faulty, which may be caused by applications, drivers, or hardware.	If services are affected, submit a service ticket.	The GPU hardware may be faulty. As a result, the image engine is faulty, and services exit abnormally.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GPU temperature too high	highTemperatureEvent	Major	GPU temperature too high	If services are affected, submit a service ticket.	If the GPU temperature exceeds the threshold, the GPU performance may deteriorate.
		GPU NVLink faulty	nvlinkError	Major	A hardware fault occurs on the NVLink.	If services are affected, submit a service ticket.	The NVLink link is faulty and unavailable.
		System maintenance inquiring	system_maintenance_inquiring	Major	The scheduled BMS maintenance task is being inquired.	Authorize the maintenance.	None
		System maintenance waiting	system_maintenance_scheduled	Major	The scheduled BMS maintenance task is waiting to be executed.	Clarify the impact on services during the execution window.	None
		System maintenance canceled	system_maintenance_canceled	Major	The scheduled BMS maintenance is canceled.	None	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		System maintenance executing	system_maintenance_executing	Major	BMSs are being maintained as scheduled.	After the maintenance is complete, check whether services are affected.	Services are interrupted.
		System maintenance completed	system_maintenance_completed	Major	The scheduled BMS maintenance is completed.	Wait until the BMSs become available and check whether services recover.	None
		System maintenance failure	system_maintenance_failed	Major	The scheduled BMS maintenance task failed.	Contact O&M personnel.	Services are interrupted.
		GPU Xid error	commonXidError	Major	A Xid event alarm was generated on the GPU.	If services are affected, submit a service ticket.	The GPU hardware, driver, and application problems lead to Xid events, which may interrupt services.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		NPU: device not found by npu-smi info	NPUSMICardNotFound	Major	The Ascend driver is faulty or the NPU is disconnected.	Transfer this issue to the Ascend or hardware team for handling.	The NPU cannot be used normally.
		NPU: PCIe link error	PCIeErrorFound	Major	The **lspci** command returns **rev ff** indicating that the NPU is abnormal.	Restart the BMS. If the issue persists, transfer it to the hardware team for processing.	The NPU cannot be used normally.
		NPU: device not found by lspci	LspciCardNotFound	Major	The NPU is disconnected.	Transfer this issue to the hardware team for handling.	The NPU cannot be used normally.
		NPU: overtemperature	TemperatureOverUpperLimit	Major	The temperature of DDR or software is too high.	Stop services, restart the BMS, check the heat dissipation system, and reset the devices.	The BMS may be powered off and devices may not be found.
		NPU: uncorrectable ECC error	UncorrectableEccErrorCount	Major	There are uncorrectable ECC errors on the NPU.	If services are affected, replace the NPU with another one.	Services may be interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		NPU: request for BMS restart	RebootVirtualMachine	Informational	A fault occurs and the BMS needs to be restarted.	Collect the fault information, and restart the BMS.	Services may be interrupted.
		NPU: request for SoC reset	ResetSOC	Informational	A fault occurs and the SoC needs to be reset.	Collect the fault information, and reset the SoC.	Services may be interrupted.
		NPU: request for restart AI process	RestartAIProcess	Informational	A fault occurs and the AI process needs to be restarted.	Collect the fault information, and restart the AI process.	The current AI task will be interrupted.
		NPU: error codes	NPUErrorCodeWarning	Major	A large number of NPU error codes indicating major or higher-level errors are returned. You can further locate the faults based on the error codes.	Locate the faults according to the *Black Box Error Code Information List* and *Health Management Error Definition*.	Services may be interrupted.
		nvidia-smi suspended	nvidiaSmiHangEvent	Major	nvidia-smi timed out.	If services are affected, submit a service ticket.	The driver may report an error during service running.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		nv_peer_mem loading error	NvPeerMemException	Minor	The NVLink or nv_peer_mem cannot be loaded.	Restore or reinstall the NVLink.	nv_peer_mem cannot be used.
		Fabric Manager error	NvFabricManagerException	Minor	The BMS meets the NVLink conditions and NVLink is installed, but Fabric Manager is abnormal.	Restore or reinstall the NVLink.	NVLink cannot be used normally.
		IB card error	InfinibandStatusException	Major	The IB card or its physical status is abnormal.	Transfer this issue to the hardware team for handling.	The IB card cannot work normally.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GPU throttle alarm	gpuClocksThrottleReasonsAlarm	Informational	1. The GPU power may exceed the maximum operating power threshold (continuous full load). The clock frequency automatically decreases to prevent the GPU from being damaged. 2. The GPU temperature may exceed the maximum operating temperature threshold (continuous full load). The clock frequency automatically decreases to reduce heat. 3. The GPU may remain	Check whether the clock frequency decrease is caused by hardware faults. If yes, transfer it to the hardware team.	The GPU slows down, resulting in less powerful compute.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
					idle, with the clock frequency automatically decreasing to reduce power consumption. 4. Hardware faults may cause a decrease in clock frequency.		

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Pending page retirement for GPU DRAM ECC	gpuRetiredPagesPendingAlarm	Major	1. An ECC error occurred on the hardware. DRAM pages need to be retired. 2. An uncorrectable ECC error occurred on the GPU memory page and the page needs to be retired. However, the page is suspended and has not been retired yet.	1. View the event details and check whether the value of **retired_pages.pending** is **yes**. 2. Restart the GPU for automatic retirement.	The GPU cannot work properly.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Pending row remapping for GPU DRAM ECC	gpuRemappedRowsAlarm	Major	Some rows in the GPU memory have errors and need to be remapped. The faulty rows must be mapped to standby resources.	1. View the event metric "RemappedRow" to check if there are any rows that have been remapped. 2. Restart the GPU for automatic retirement.	The GPU cannot work properly.
		Insufficient resources for GPU DRAM ECC row remapping	gpuRowRemapperResourceAlarm	Major	1. This event occurs on GPUs (Ampere and later architectures). 2. The standby GPU memory row resources are exhausted, so row remapping cannot be continued.	Transfer the issue to the hardware team.	The GPU cannot work properly.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Correctable GPU DRAM ECC error	gpuDRAMCorrectableEccError	Major	1. This event occurs on GPUs (Ampere and later architectures). 2. A correctable ECC error occurs in the DRAM of the GPU. However, the ECC mechanism can automatically rectify the error and programs are not affected.	1. View the event metric "ecc.errors.corrected.volatile" to check whether there are any correctable ECC error values. 2. Restart the GPU for automatic retirement.	The GPU may not work properly.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Uncorrectable GPU DRAM ECC error	gpuDRAMUncorrectableEccError	Major	1. This event occurs on GPUs (Ampere and later architectures). 2. An uncorrectable ECC error occurs in the DRAM of the GPU. This error cannot be automatically corrected using the ECC mechanism. The verification process affects system stability and may cause program crashes.	1. View the event metric "ecc.errors.uncorrected.volatile" to check whether there are any uncorrectable ECC error values. 2. Restart the GPU for automatic retirement.	The GPU may not work properly.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Inconsistent GPU kernel versions	gpuKernelVersionInconsistencyAlarm	Major	Inconsistent GPU kernel versions. During driver installation, the GPU driver is compiled based on the kernel at that time. If the kernel versions are identified inconsistent, the kernel has been customized after the driver installation. In this case, the driver would become unavailable and needs to be reinstalled.	1. Run the following commands to rectify the issue: **rmmod nvidia_drm** **rmmod nvidia_modeset** **rmmod nvidia** Then, run **nvidia-smi**. If the command output is normal, the issue has been rectified. 2. If the preceding solution does not work, rectify	The GPU cannot work properly.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						the fault by referring to	
		GPU monitoring dependency not met	gpuCheckEnvFailedAlarm	Major	The plug-in cannot identify the GPU driver library path.	1. Check whether the driver is installed. 2. Check whether the driver installation directory has been customized. The driver needs to be installed in the default installation directory **/usr/bin/**.	Collection failure of GPU monitoring metrics

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Initialization failure of the GPU monitoring driver library	gpuDriverInitFailedAlarm	Major	The GPU driver is unavailable.	Run **nvidia-smi** to check whether the driver is unavailable. If the driver is unavailable, reinstall the driver by referring to .	Collection failure of GPU monitoring metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Initialization timeout of the GPU monitoring driver library	gpuDriverInitTAlarm	Major	The GPU driver initialization timed out (exceeding 10s).	1. If the driver is not installed, install it by referring to . 2. If the driver is installed, run **nvidia-smi** to check whether the driver is available. If the driver is unavailable, reinstall the driver by referring to . 3. If the driver is properly installed, check whether the high-	Collection failure of GPU monitoring metrics

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						performance mode is enabled. If not, run **nvidia-smi -pm 1** to enable it. P0 indicates the high-performance mode.	

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GPU metric collection timeout	gpuCollectMetricTimeoutAlarm	Major	The GPU metric collection timed out (exceeding 10s).	1. If the library API timed out, run **nvidia-smi** to check whether the driver is available. If the driver is unavailable, reinstall the driver by referring to . 2. If the command execution timed out, check the system logs and determine whether there is an issue with	GPU monitoring metric data is missing. As a result, subsequent metrics may fail to be collected.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						the system.	
		GPU handle lost	gpuDeviceHandleLost	Major	The GPU metric information cannot be obtained, and the GPU may be lost.	1. Run **nvidia-smi** to check whether there are any errors reported. 2. Run **nvidia-smi -L** to check whether the number of GPUs is the same as the server specifications. 3. Submit a service ticket to contact on-call support.	All metrics of the GPU are lost.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failed to listen to the XID of the GPU.	gpuDeviceXidLost	Major	Failed to listen to the XID metric.	1. Check whether the GPU is lost or damaged. 2. Submit a service ticket to contact on-call support.	Failed to obtain XID-related metrics of the GPU.
		Multiple NPU HBM ECC errors	NpuHbmMultiEccInfo	Informational	There are NPU HBM ECC errors.	This event is only a reference for other events. You do not need to handle it separately.	The NPU may not work properly.
		ReadOnly issues in OS	ReadOnlyFileSystem	Critical	The file system %s is read-only.	Check the disk health status.	The files cannot be written.
		NPU: driver and firmware not matching	NpuDriverFirmwareMismatch	Major	The NPU's driver and firmware do not match.	Obtain the matched version from the Ascend official website and reinstall it.	NPUs cannot be used.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		NPU: Docker container environment check	NpuContainerEnvSystem	Major	Docker was unavailable.	Check if Docker is normal.	Docker cannot be used.
				Major	The container plug-in Ascend-Docker-Runtime was not installed.	Install the container plug-in Ascend-Docker-Runtime. Or, the container cannot use Ascend cards.	NPUs cannot be attached to Docker containers.
				Major	IP forwarding was not enabled in the OS.	Check the **net.ipv4.ip_forward** configuration in the **/etc/sysctl.conf** file.	Docker containers experience network communication problems.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
				Major	The shared memory of the container was too small.	The default shared memory is 64 MB, which can be modified as needed. Method 1 Modify the **default-shm-size** field in the **/etc/docker/daemon.json** configuration file. Method 2 Use the **--shm-size** parameter in the **docker run** command to set the shared memory size of a container.	Distributed training will fail due to insufficient shared memory.
		NPU: RoCE NIC down	RoCELinkStatusDown	Major	The RoCE link of NPU card %d was down.	Check the NPU RoCE network port status.	The NPU NIC becomes unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		NPU: RoCE NIC health status abnormal	RoCEHealthStatusError	Major	The RoCE network health status of NPU %d was abnormal.	Check the health status of the NPU RoCE NIC.	The NPU NIC becomes unavailable.
		NPU: RoCE NIC configuration file **/etc/hccn.conf** not found	HccnConfNotExisted	Major	The RoCE NIC configuration file **/etc/hccn.conf** was not found.	Check whether the **/etc/hccn.conf** NIC configuration file can be found.	The RoCE NIC becomes unavailable.
		GPU: basic components abnormal	GpuEnvironmentSystem	Major	The **nvidia-smi** command was abnormal.	Check whether the GPU driver is normal.	The GPU driver is unavailable.
				Major	The nvidia-fabricmanager version was inconsistent with the GPU driver version.	Check the GPU driver version and nvidia-fabricmanager version.	The nvidia-fabricmanager cannot work properly, affecting GPU usage.
				Major	The container plug-in nvidia-container-toolkit was not installed.	Install the container plug-in nvidia-container-toolkit.	GPUs cannot be attached to Docker containers.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Local disk attachment inspection	MountDiskSystem	Major	The **/etc/fstab** file contains invalid UUIDs.	Ensure that the UUIDs in the **/etc/fstab** configuration file are correct. Or, the server may fail to be restarted.	The disk attachment process fails, preventing the server from restarting.
		GPU: incorrectly configured dynamic route for Ant series server	GpuRouteConfigError	Major	The dynamic route of the NIC %s of an Ant series server was not configured or was incorrectly configured. CMD [ip route]: %s | CMD [ip route show table all]: %s.	Configure the RoCE NIC route correctly.	The NPU network communication will be interrupted.
		NPU: RoCE port not split	RoCEUdpConfigError	Major	The RoCE UDP port was not split.	Check the RoCE UDP port configuration on the NPU.	The communication performance of NPUs is affected.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Warning of automatic system kernel upgrade	KernelUpgradeWarning	Major	Warning of automatic system kernel upgrade. Old version: %s; new version: %s.	System kernel upgrade may cause AI software exceptions. Check the system update logs and prevent the server from restarting.	The AI software may be unavailable.
		NPU environment command detection	NpuToolsWarning	Major	The hccn_tool was unavailable.	Check whether the NPU driver is normal.	The IP address and gateway of the RoCE NIC cannot be configured.
				Major	The npu-smi was unavailable.	Check whether the NPU driver is normal.	NPUs cannot be used.
				Major	The ascend-dmi was unavailable.	Check whether ToolBox is properly installed.	ascend-dmi cannot be used for performance analysis.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Warning of an NPU driver exception	NpuDriverAbnormalWarning	Major	The NPU driver was abnormal.	Reinstall the NPU driver.	NPUs cannot be used.
		GPU: invalid RoCE NIC configuration	GpuRoceNicConfigIncorrect	Major	The RoCE NIC of the GPU is incorrectly configured.	Contact O&M personnel.	The parameter plane network is abnormal, preventing the execution of the multi-node task.
		Local disk replacement to be authorized	localdisk_recovery_inquiring	Major	The local disk is faulty. Local disk replacement authorization is in progress.	Authorize local disk replacement.	Local disks are unavailable.
		Local disks being replaced	localdisk_recovery_executing	Major	The local disk is faulty and is being replaced.	When the replacement is complete, check whether the local disks are available.	Local disks are unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Local disks replaced	localdisk_recovery_completed	Major	The local disk is faulty and is replaced.	Wait until the services are running properly and check whether local disks are available.	None
		Local disk replacement failed	localdisk_recovery_failed	Major	The local disk is faulty and fails to be replaced.	Contact O&M personnel.	Local disks are unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-3 Elastic IP (EIP)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
EIP	SYS.EIP	EIP bandwidth exceeded	EIPBandwidthOverflow	Major	The used bandwidth exceeded the purchased one, which may slow down the network or cause packet loss. The value of this event is the maximum value in a monitoring period, and the value of the EIP inbound and outbound bandwidth is the value at a specific time point in the period. The metrics are described as follows: **egressDropBandwidth**: dropped outbound packets (bytes) **egressAcceptBandwidth**: accepted outbound packets (bytes) **egressMaxBandwidthPerSec**: peak outbound bandwidth (byte/s) **ingressAcceptBandwidth**: accepted	Check whether the EIP bandwidth keeps increasing and whether services are normal. Increase bandwidth if necessary.	The network becomes slow or packets are lost.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
					inbound packets (bytes) **ingressMaxBandwidthPerSec**: peak inbound bandwidth (byte/s) **ingressDropBandwidth**: dropped inbound packets (bytes)		
		EIP released	deleteEip	Minor	The EIP was released.	Check whether the EIP was release by mistake.	The server that has the EIP bound cannot access the Internet.
		EIP blocked	blockEIP	Critical	The used bandwidth of an EIP exceeded 5 Gbit/s, the EIP were blocked and packets were discarded. Such an event may be caused by DDoS attacks.	Replace the EIP to prevent services from being affected. Locate and deal with the fault.	Services are impacted.
		EIP unblocked	unblockEIP	Critical	The EIP was unblocked.	Use the previous EIP again.	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		EIP traffic scrubbing started	ddosCleanEIP	Major	Traffic scrubbing on the EIP was started to prevent DDoS attacks.	Check whether the EIP was attacked.	Services may be interrupted.
		EIP traffic scrubbing ended	ddosEndCleanEip	Major	Traffic scrubbing on the EIP to prevent DDoS attacks was ended.	Check whether the EIP was attacked.	Services may be interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		QoS bandwidth exceeded	EIPBandwidthRuleOverflow	Major	The used QoS bandwidth exceeded the allocated one, which may slow down the network or cause packet loss. The value of this event is the maximum value in a monitoring period, and the value of the EIP inbound and outbound bandwidth is the value at a specific time point in the period. **egressDropBandwidth**: dropped outbound packets (bytes) **egressAcceptBandwidth**: accepted outbound packets (bytes) **egressMaxBandwidthPerSec**: peak outbound bandwidth (byte/s) **ingressAcceptBandwidth**: accepted inbound packets (bytes) **ingressMaxBandwidthPerSec**: peak inbound	Check whether the EIP bandwidth keeps increasing and whether services are normal. Increase bandwidth if necessary.	The network becomes slow or packets are lost.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
					bandwidth (byte/s) **ingressDropBandwidth**: dropped inbound packets (bytes)		
		EIP unbound with resources	EipNotBoundStatus	Major	The EIP is unbound with instance resources.	None	When an EIP is unbound, you will be billed for IP reservation fees and bandwidth fees (billed by bandwidth).

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-4 Advanced Anti-DDoS (AAD)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
AAD	SYS.DDOS	DDoS Attack Events	ddosAttackEvents	Major	A DDoS attack occurs in the AAD protected lines.	Judge the impact on services based on the attack traffic and attack type. If the attack traffic exceeds your purchased elastic bandwidth, change to another line or increase your bandwidth.	Services may be interrupted.
		Domain name scheduling event	domainNameDispatchEvents	Major	The high-defense CNAME corresponding to the domain name is scheduled, and the domain name is resolved to another high-defense IP address.	Pay attention to the workloads involving the domain name.	Services are not affected.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Blackhole event	blackHoleEvents	Major	The attack traffic exceeds the purchased AAD protection threshold.	A blackhole is canceled after 30 minutes by default. The actual blackhole duration is related to the blackhole triggering times and peak attack traffic on the current day. The maximum duration is 24 hours. If you need to permit access before a blackhole becomes ineffective, contact technical support.	Services may be interrupted.
		Cancel Blackhole	cancelBlackHole	Informational	The customer's AAD instance recovers from the black hole state.	This is only a prompt and no action is required.	Customer services recover.
		IP address scheduling triggered	ipDispatchEvents	Major	IP route changed	Check the workloads of the IP address.	Services are not affected.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-5 Elastic Load Balance (ELB)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
ELB	SYS.ELB	The backend servers are unhealthy.	healthCheckUnhealthy	Major	Generally, this problem occurs because backend server services are offline. This event will not be reported after it is reported for several times.	Ensure that the backend servers are running properly.	ELB does not forward requests to unhealthy backend servers. If all backend servers in the backend server group are detected unhealthy, services will be interrupted.
		The backend server is detected healthy.	healthCheckRecovery	Minor	The backend server is detected healthy.	No further action is required.	The load balancer can properly route requests to the backend server.

Table 10-6 Cloud Backup and Recovery (CBR)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
CBR	SYS.CBR	Failed to create the backup.	backupFailed	Critical	The backup failed to be created.	Manually create a backup or contact customer service.	Data loss may occur.
		Failed to restore the resource using a backup.	restorationFailed	Critical	The resource failed to be restored using a backup.	Restore the resource using another backup or contact customer service.	Data loss may occur.
		Failed to delete the backup.	backupDeleteFailed	Critical	The backup failed to be deleted.	Try again later or contact customer service.	Charging may be abnormal.
		Failed to delete the vault.	vaultDeleteFailed	Critical	The vault failed to be deleted.	Try again later or contact technical support.	Charging may be abnormal.
		Replication failure	replicationFailed	Critical	The backup failed to be replicated.	Try again later or contact technical support.	Data loss may occur.
		The backup is created successfully.	backupSucceeded	Major	The backup was created.	None	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Resource restoration using a backup succeeded.	restorationSucceeded	Major	The resource was restored using a backup.	Check whether the data is successfully restored.	None
		The backup is deleted successfully.	backupDeletionSucceeded	Major	The backup was deleted.	None	None
		The vault is deleted successfully.	vaultDeletionSucceeded	Major	The vault was deleted.	None	None
		Replication success	replicationSucceeded	Major	The backup was replicated successfully.	None	None
		Client offline	agentOffline	Critical	The backup client was offline.	Ensure that the Agent status is normal and the backup client can be connected to Huawei Cloud.	Backup tasks may fail.
		Client online	agentOnline	Major	The backup client was online.	None	None

Table 10-7 Relational Database Service (RDS) — resource exception

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
RDS	SYS.RDS	DB instance creation failure	createInstanceFailed	Major	Generally, the cause is that the number of disks is insufficient due to quota limits, or underlying resources are exhausted.	The selected resource specifications are insufficient. Select other available specifications and try again.	DB instances cannot be created.
		Full backup failure	fullBackupFailed	Major	A single full backup failure does not affect the files that have been successfully backed up, but prolong the incremental backup time during the point-in-time restore (PITR).	Try again.	Full backup failed.
		Read replica promotion failure	activeStandBySwitchFailed	Major	The standby DB instance does not take over workloads from the primary DB instance due to network or server failures. The original primary DB instance continues to provide services within a short time.	Perform the switchover again during off-peak hours.	The primary/standby switchover will fail.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Replication status abnormal	abnormalReplicationStatus	Major	The possible causes are as follows: The replication delay between the primary instance and the standby instance or a read replica is too long, which usually occurs when a large amount of data is being written to databases or a large transaction is being processed. During peak hours, data may be blocked. The network between the primary instance and the standby instance or a read replica is disconnected.	Database replication is being repaired. You will be notified immediately after the repair.	The replication status is abnormal.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Replication status recovered	replicationStatusRecovered	Major	The replication delay between the primary and standby instances is within the normal range, or the network connection between them has restored.	Check whether services are running properly.	Replication status is recovered.
		DB instance faulty	faultyDBInstance	Major	A single or primary DB instance was faulty due to a catastrophic failure, for example, server failure.	Instance status is being repaired. You will be notified immediately after the repair.	The instance status is abnormal.
		DB instance recovered	DBInstanceRecovered	Major	RDS rebuilds the standby DB instance with its high availability. After the instance is rebuilt, this event will be reported.	The DB instance status is normal. Check whether services are running properly.	The instance is recovered.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failure of changing single DB instance to primary/ standby	singleToHaFailed	Major	A fault occurs when RDS is creating the standby DB instance or configuring replication between the primary and standby DB instances. The fault may occur because resources are insufficient in the data center where the standby DB instance is located.	Automatic retry is in progress.	Changing a single DB instance to primary/ standby failed.
		Database process restarted	DatabaseProcessRestarted	Major	The database process is stopped due to insufficient memory or high load.	Check whether services are running properly.	The primary instance is restarted. Services are interrupted for a short period of time.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Instance storage full	instanceDiskFull	Major	Generally, the cause is that the data space usage is too high.	Scale up the storage.	The instance storage is used up. No data can be written into databases.
		Instance storage full recovered	instanceDiskFullRecovered	Major	The instance disk is recovered.	Check whether services are running properly.	The instance has available storage.
		Kafka connection failed	kafkaConnectionFailed	Major	The network is unstable or the Kafka server does not work properly.	Check whether services are affected.	None

Table 10-8 Relational Database Service (RDS) — operations

Event Source	Namespace	Event Name	Event ID	Event Severity	Description
RDS	SYS.RDS	Reset administrator password	resetPassword	Major	The password of the database administrator is reset.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Name space	Event Name	Event ID	Event Severity	Description
		Operate DB instance	instanceAction	Major	The storage space is scaled or the instance class is changed.
		Delete DB instance	deleteInstance	Minor	The DB instance is deleted.
		Modify backup policy	setBackupPolicy	Minor	The backup policy is modified.
		Modify parameter group	updateParameterGroup	Minor	The parameter group is modified.
		Delete parameter group	deleteParameterGroup	Minor	The parameter group is deleted.
		Reset parameter group	resetParameterGroup	Minor	The parameter group is reset.
		Change database port	changeInstancePort	Major	The database port is changed.
		Primary/ standby switchover or failover	PrimaryStandbySwitched	Major	A switchover or failover is performed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-9 Document Database Service (DDS)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
DDS	SYS.DDS	DB instance creation failure	DDSCreateInstanceFailed	Major	A DDS instance fails to be created due to insufficient disks, quotas, and underlying resources.	Check the number and quota of disks. Release resources and create DDS instances again.	DDS instances cannot be created.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Replication failed	DDSAbnormalReplicationStatus	Major	The possible causes are as follows: 1. The replication delay between the primary instance and the standby instance or a read replica is too long, which usually occurs when a large amount of data is being written to databases or a large transaction is being processed. During peak hours, data may be blocked. 2. The network between the primary instance and the standby instance or a read replica is	Submit a service ticket.	1. Read and write operations on the original instance are not interrupted, but data updates on the standby instance may experience delays. 2. The replication delay keeps growing between the primary and standby instances, and the standby instance may be disconnected.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
					disconnected.		
		Replication status recovered	DDSReplicationStatusRecovered	Major	The replication delay between the primary and standby instances is within the normal range, or the network connection between them has restored.	No action is required.	None
		DB instance failed	DDSFaultyDBInstance	Major	This event is a key alarm event and is reported when an instance is faulty due to a disaster or a server failure.	Submit a service ticket.	The database service may be unavailable.
		DB instance recovered	DDSDBInstanceRecovered	Major	If a disaster occurs, NoSQL provides an HA tool to automatically or manually rectify the fault. After the fault is rectified, this event is reported.	No action is required.	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Faulty node	DDSFaultyDBNode	Major	This event is a key alarm event and is reported when a database node is faulty due to a disaster or a server failure.	Check whether the database service is available and submit a service ticket.	The database service may be unavailable.
		Node recovered	DDSDBNodeRecovered	Major	If a disaster occurs, NoSQL provides an HA tool to automatically or manually rectify the fault. After the fault is rectified, this event is reported.	No action is required.	None
		Primary/standby switchover or failover	DDSPrimaryStandbySwitched	Major	This event is reported when a primary/standby switchover or a failover is triggered.	No action is required.	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Insufficient storage space	DDSRiskyDataDiskUsage	Major	The storage space is insufficient.	Scale up storage space. For details, see section "Scaling Up Storage Space" in the corresponding user guide.	The instance is set to read-only and data cannot be written to the instance.
		Data disk expanded and being writable	DDS DataDiskUsageRecovered	Major	The capacity of a data disk has been expanded and the data disk becomes writable.	No further action is required.	No adverse impact.
		Schedule for deleting a KMS key	planDeleteKmsKey	Major	A request to schedule deletion of a KMS key was submitted.	After the KMS key is scheduled to be deleted, either decrypt the data encrypted by KMS key in a timely manner or cancel the key deletion.	After the KMS key is deleted, users cannot encrypt disks.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Full backup failure	DDSFullBackupFailed	Major	A single full backup failure does not affect the files that have been successfully backed up, but prolong the incremental backup time during the point-in-time restore (PITR).	Try again.	Full backup fail.

Table 10-10 GeminiDB

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
GeminiDB	SYS.NoSQL	DB instance creation failed	NoSQLCreateInstanceFailed	Major	The instance quota or underlying resources are insufficient.	Release the instances that are no longer used and try to provision them again, or submit a service ticket to adjust the quota.	DB instances cannot be created.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Specifications modification failed	NoSQLResizeInstanceFailed	Major	The underlying resources are insufficient.	Submit a service ticket. The O&M personnel will coordinate resources in the background, and then you need to change the specifications again.	Services are interrupted.
		Node adding failed	NoSQLAddNodesFailed	Major	The underlying resources are insufficient.	Submit a service ticket. The O&M personnel will coordinate resources in the background, and then you delete the node that failed to be added and add a new node.	None
		Node deletion failed	NoSQLDeleteNodesFailed	Major	The underlying resources fail to be released.	Delete the node again.	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Storage space scale-up failed	NoSQLScaleUpStorageFailed	Major	The underlying resources are insufficient.	Submit a service ticket. The O&M personnel will coordinate resources in the background and then you scale up the storage space again.	Services may be interrupted.
		Password reset failed	NoSQLResetPasswordFailed	Major	Resetting the password times out.	Reset the password again.	None
		Parameter group change failed	NoSQLUpdateInstanceParamGroupFailed	Major	Changing a parameter group times out.	Change the parameter group again.	None
		Backup policy configuration failed	NoSQLSetBackupPolicyFailed	Major	The database connection is abnormal.	Configure the backup policy again.	None
		Manual backup creation failed	NoSQLCreateManualBackupFailed	Major	The backup files fail to be exported or uploaded.	Submit a service ticket to the O&M personnel.	Data cannot be backed up.
		Automated backup creation failed	NoSQLCreateAutomatedBackupFailed	Major	The backup files fail to be exported or uploaded.	Submit a service ticket to the O&M personnel.	Data cannot be backed up.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Faulty DB instance	NoSQLFaultyDBInstance	Major	This event is a key alarm event and is reported when an instance is faulty due to a disaster or a server failure.	Submit a service ticket.	The database service may be unavailable.
		DB instance recovered	NoSQLDBInstanceRecovered	Major	If a disaster occurs, NoSQL provides an HA tool to automatically or manually rectify the fault. After the fault is rectified, this event is reported.	No action is required.	None
		Faulty node	NoSQLFaultyDBNode	Major	This event is a key alarm event and is reported when a database node is faulty due to a disaster or a server failure.	Check whether the database service is available and submit a service ticket.	The database service may be unavailable.
		Node recovered	NoSQLDBNodeRecovered	Major	If a disaster occurs, NoSQL provides an HA tool to automatically or manually rectify the fault. After the fault is rectified, this event is reported.	No action is required.	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Primary/standby switchover or failover	NoSQLPrimaryStandbySwitched	Major	This event is reported when a primary/secondary switchover or failover is triggered.	No action is required.	None
		HotKey occurred	HotKeyOccurs	Major	The primary key is improperly configured. As a result, hotspot data is distributed in one partition. The improper application design causes frequent read and write operations on a key.	1. Choose a proper partition key. 2. Add service cache. The service application reads hotspot data from the cache first.	The service request success rate is affected, and the cluster performance and stability also be affected.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		BigKey occurred	BigKeyOccurs	Major	The primary key design is improper. The number of records or data in a single partition is too large, causing unbalanced node loads.	1. Choose a proper partition key. 2. Add a new partition key for hashing data.	As the data in the large partition increases, the cluster stability deteriorates.
		Insufficient storage space	NoSQLRiskyDataDiskUsage	Major	The storage space is insufficient.	Scale up storage space. For details, see section "Scaling Up Storage Space" in the corresponding user guide.	The instance is set to read-only and data cannot be written to the instance.
		Data disk expanded and being writable	NoSQLDataDiskUsageRecovered	Major	The capacity of a data disk has been expanded and the data disk becomes writable.	No operation is required.	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Index creation failed	NoSQLCreateIndexFailed	Major	The service load exceeds what the instance specifications can take. In this case, creating indexes consumes more instance resources. As a result, the response is slow or even frame freezing occurs, and the creation times out.	Select the matched instance specifications based on the service load. Create indexes during off-peak hours. Create indexes in the background. Select indexes as required.	The index fails to be created or is incomplete. As a result, the index is invalid. Delete the index and create an index.
		Write speed decreased	NoSQLStallingOccurs	Major	The write speed is fast, which is close to the maximum write capability allowed by the cluster scale and instance specifications. As a result, the flow control mechanism of the database is triggered, and requests may fail.	1. Adjust the cluster scale or node specifications based on the maximum write rate of services. 2. Measures the maximum write rate of services.	The success rate of service requests is affected.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Data write stopped	NoSQLStoppingOccurs	Major	The data write is too fast, reaching the maximum write capability allowed by the cluster scale and instance specifications. As a result, the flow control mechanism of the database is triggered, and requests may fail.	1. Adjust the cluster scale or node specifications based on the maximum write rate of services. 2. Measures the maximum write rate of services.	The success rate of service requests is affected.
		Database restart failed	NoSQLRestartDBFailed	Major	The instance status is abnormal.	Submit a service ticket to the O&M personnel.	The DB instance status may be abnormal.
		Restoration to new DB instance failed	NoSQLRestoreToNewInstanceFailed	Major	The underlying resources are insufficient.	Submit a service order to ask the O&M personnel to coordinate resources in the background and add new nodes.	Data cannot be restored to a new DB instance.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Restoration to existing DB instance failed	NoSQLRestoreToExistInstanceFailed	Major	The backup file fails to be downloaded or restored.	Submit a service ticket to the O&M personnel.	The current DB instance may be unavailable.
		Backup file deletion failed	NoSQLDeleteBackupFailed	Major	The backup files fail to be deleted from OBS.	Delete the backup files again.	None
		Failed to enable Show Original Log	NoSQLSwitchSlowlogPlainTextFailed	Major	The DB engine does not support this function.	Refer to the *GaussDB NoSQL User Guide* to ensure that the DB engine supports Show Original Log. Submit a service ticket to the O&M personnel.	None
		EIP binding failed	NoSQLBindEipFailed	Major	The node status is abnormal, an EIP has been bound to the node, or the EIP to be bound is invalid.	Check whether the node is normal and whether the EIP is valid.	The DB instance cannot be accessed from the Internet.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		EIP unbinding failed	NoSQLUnbindEipFailed	Major	The node status is abnormal or the EIP has been unbound from the node.	Check whether the node and EIP status are normal.	None
		Parameter modification failed	NoSQLModifyParameterFailed	Major	The parameter value is invalid.	Check whether the parameter value is within the valid range and submit a service ticket to the O&M personnel.	None
		Parameter group application failed	NoSQLApplyParameterGroupFailed	Major	The instance status is abnormal. As a result, the parameter group cannot be applied.	Submit a service ticket to the O&M personnel.	None
		Failed to enable or disable SSL	NoSQLSwitchSSLFailed	Major	Enabling or disabling SSL times out.	Try again or submit a service ticket. Do not change the connection mode.	The connection mode cannot be changed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Row size too large	LargeRowOccurs	Major	If there is too much data in a single row, queries may time out, causing faults like OOM error.	1. Control the length of each column and row so that the sum of key and value lengths in each row does not exceed the preset threshold. 2. Check whether there are invalid writes or encoding resulting in large keys or values.	If there are rows that are too large, the cluster performance will deteriorate as the data volume grows.
		Schedule for deleting a KMS key	planDeleteKmsKey	Major	A request to schedule deletion of a KMS key was submitted.	After the KMS key is scheduled to be deleted, either decrypt the data encrypted by KMS key in a timely manner or cancel the key deletion.	After the KMS key is deleted, users cannot encrypt disks.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Too many query tombstones	TooManyQueryTombstones	Major	If there are too many query tombstones, queries may time out, affecting query performance.	Select right query and deleting methods and avoid long range queries.	Queries may time out, affecting query performance.
		Too large collection column	TooLargeCollectionColumn	Major	If there are too many elements in a collection column, queries to the column will fail.	1. Limit elements in a collection column. 2. Check for abnormal writes or coding at the service side.	Queries to the collection column will fail.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GeminiDB Influx instance connection limit reached	InfluxDBConnectionFull	Major	The connections on the instance node reach the upper limit.	1. Upgrade specifications if they cannot meet service requirements. 2. Check whether the client properly manages connections, for example, whether there are unreleased or long connections.	If no new connection can be created on a node, the client may fail to connect to a GeminiDB Influx instance. As a result, services may become instable.
		High availability switchover	nodeHaSwitch	Major	The high availability switchover is triggered by underlying network jitters.	Check whether the business is normal and it can be restored automatically.	The network jitter causes a few seconds of delay.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-11 TaurusDB

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
TaurusDB	SYS.GAUSSDB	Incremental backup failure	TaurusIncrementalBackupInstanceFailed	Major	The network between the instance and the management plane (or the OBS) is disconnected, or the backup environment created for the instance is abnormal.	Submit a service ticket.	Backup jobs fail.
		Read replica creation failure	addReadonlyNodesFailed	Major	The quota is insufficient or underlying resources are exhausted.	Check the read replica quota. Release resources and create read replicas again.	Read replicas fail to be created.
		DB instance creation failure	createInstanceFailed	Major	The instance quota or underlying resources are insufficient.	Check the instance quota. Release resources and create instances again.	DB instances fail to be created.
		Read replica promotion failure	activeStandBySwitchFailed	Major	The read replica fails to be promoted to the primary node due to network or server failures. The original primary node takes over services quickly.	Submit a service ticket.	The read replica fails to be promoted to the primary node.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Instance specifications change failure	flavorAlterationFailed	Major	The quota is insufficient or underlying resources are exhausted.	Submit a service ticket.	Instance specifications fail to be changed.
		Faulty DB instance	TaurusInstanceRunningStatusAbnormal	Major	The instance process is faulty or the communications between the instance and the DFV storage are abnormal.	Submit a service ticket.	Services may be affected.
		DB instance recovered	TaurusInstanceRunningStatusRecovered	Major	The instance is recovered.	Observe the service running status.	None
		Faulty node	TaurusNodeRunningStatusAbnormal	Major	The node process is faulty or the communications between the node and the DFV storage are abnormal.	Observe the instance and service running statuses.	A read replica may be promoted to the primary node.
		Node recovered	TaurusNodeRunningStatusRecovered	Major	The node is recovered.	Observe the service running status.	None

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Read replica deletion failure	TaurusDeleteReadOnlyNodeFailed	Major	The communications between the management plane and the read replica are abnormal or the VM fails to be deleted from IaaS.	Submit a service ticket.	Read replicas fail to be deleted.
		Password reset failure	TaurusResetInstancePasswordFailed	Major	The communications between the management plane and the instance are abnormal or the instance is abnormal.	Check the instance status and try again. If the fault persists, submit a service ticket.	Passwords fail to be reset for instances.
		DB instance reboot failure	TaurusRestartInstanceFailed	Major	The network between the management plane and the instance is abnormal or the instance is abnormal.	Check the instance status and try again. If the fault persists, submit a service ticket.	Instances fail to be rebooted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Restoration to new DB instance failure	TaurusRestoreToNewInstanceFailed	Major	The instance quota is insufficient, underlying resources are exhausted, or the data restoration logic is incorrect.	If the new instance fails to be created, check the instance quota, release resources, and try to restore to a new instance again. In other cases, submit a service ticket.	Back up data fails to be restored to new instances.
		EIP binding failure	TaurusBindEIPToInstanceFailed	Major	The binding task fails.	Submit a service ticket.	EIPs fail to be bound to instances.
		EIP unbinding failure	TaurusUnbindEIPFromInstanceFailed	Major	The unbinding task fails.	Submit a service ticket.	EIPs fail to be unbound from instances.
		Parameter modification failure	TaurusUpdateInstanceParameterFailed	Major	The network between the management plane and the instance is abnormal or the instance is abnormal.	Check the instance status and try again. If the fault persists, submit a service ticket.	Instance parameters fail to be modified.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Parameter template application failure	TaurusApplyParameterGroupToInstanceFailed	Major	The network between the management plane and instances is abnormal or the instances are abnormal.	Check the instance status and try again. If the fault persists, submit a service ticket.	Parameter templates fail to be applied to instances.
		Full backup failure	TaurusBackupInstanceFailed	Major	The network between the instance and the management plane (or the OBS) is disconnected, or the backup environment created for the instance is abnormal.	Submit a service ticket.	Back up jobs fail.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Primary/standby failover	TaurusActiveStandbySwitched	Major	When the network, physical machine, or database of the primary node is faulty, the system promotes a read replica to primary based on the failover priority to ensure service continuity.	1. Check whether the service is running properly. 2. Check whether an alarm is generated, indicating that the read replica failed to be promoted to primary.	During the failover, database connection is interrupted for a short period of time. After the failover is complete, you can reconnect to the database.
		Database read-only	NodeReadonlyMode	Major	The database supports only query operations.	Submit a service ticket.	After the database becomes read-only, write operations cannot be processed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Database read/write	NodeReadWriteMode	Major	The database supports both write and read operations.	Submit a service ticket.	None
		Instance DR switchover	DisasterSwitchOver	Major	If an instance is faulty and unavailable, a switchover is performed to ensure that the instance continues to provide services.	Contact technical support.	The database connection is intermittently interrupted. The HA service switches workloads from the primary node to a read replica and continues to provide services.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Database process restarted	TaurusDatabaseProcessRestarted	Major	The database process is stopped due to insufficient memory or high load.	Log in to the Cloud Eye console. Check whether the memory usage increases sharply or the CPU usage is too high for a long time. You can increase the specifications or optimize the service logic.	When the database process is suspended, workloads on the node are interrupted. In this case, the HA service automatically restarts the database process and attempts to recover the workloads.

Table 10-12 GaussDB

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
GaussDB	SYS.GAUSSDBV5	Process status alarm	ProcessStatusAlarm	Major	Key processes exit, including CMS/CMA, ETCD, GTM, CN, and DN processes.	Wait until the process is automatically recovered or a primary/standby failover is automatically performed. Check whether services are recovered. If no, contact SRE engineers.	If processes on primary nodes are faulty, services are interrupted and then rolled back. If processes on standby nodes are faulty, services are not affected.
		Component status alarm	ComponentStatusAlarm	Major	Key components do not respond, including CMA, ETCD, GTM, CN, and DN components.	Wait until the process is automatically recovered or a primary/standby failover is automatically performed. Check whether services are recovered. If no, contact SRE engineers.	If processes on primary nodes do not respond, neither do the services. If processes on standby nodes are faulty, services are not affected.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Cluster status alarm	ClusterStatusAlarm	Major	The cluster status is abnormal. For example, the cluster is read-only; majority of ETCDs are faulty; or the cluster resources are unevenly distributed.	Contact SRE engineers.	If the cluster status is read-only, only read services are processed. If the majority of ETCDs are fault, the cluster is unavailable. If resources are unevenly distributed, the instance performance and reliability deteriorate.
		Hardware resource alarm	HardwareResourceAlarm	Major	A major hardware fault occurs in the instance, such as disk damage or GTM network fault.	Contact SRE engineers.	Some or all services are affected.
		Status transition alarm	StateTransitionAlarm	Major	The following events occur in the instance: DN build failure, forcible DN promotion, primary/standby DN switchover/failover, or primary/standby GTM switchover/failover.	Wait until the fault is automatically rectified and check whether services are recovered. If no, contact SRE engineers.	Some services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Other abnormal alarm	OtherAbnormalAlarm	Major	Disk usage threshold alarm	Focus on service changes and scale up storage space as needed.	If the used storage space exceeds the threshold, storage space cannot be scaled up.
		DB instance creation failure	GaussDBV5CreateInstanceFailed	Major	Instances fail to be created because the quota is insufficient or underlying resources are exhausted.	Release the instances that are no longer used and try to provision them again, or submit a service ticket to adjust the quota.	DB instances cannot be created.
		Node adding failure	GaussDBV5ExpandClusterFailed	Major	The underlying resources are insufficient.	Submit a service ticket. The O&M personnel will coordinate resources in the background, and then you delete the node that failed to be added and add a new node.	None

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Storage scale-up failure	GaussDBV5EnlargeVolumeFailed	Major	The underlying resources are insufficient.	Submit a service ticket. The O&M personnel will coordinate resources in the background and then you scale up the storage space again.	Services may be interrupted.
		Reboot failure	GaussDBV5RestartInstanceFailed	Major	The network is abnormal.	Retry the reboot operation or submit a service ticket to the O&M personnel.	The database service may be unavailable.
		Full backup failure	GaussDBV5FullBackupFailed	Major	The backup files fail to be exported or uploaded.	Submit a service ticket to the O&M personnel.	Data cannot be backed up.
		Differential backup failure	GaussDBV5DifferentialBackupFailed	Major	The backup files fail to be exported or uploaded.	Submit a service ticket to the O&M personnel.	Data cannot be backed up.
		Backup deletion failure	GaussDBV5DeleteBackupFailed	Major	The backup files fail to be deleted from OBS.	Delete the backup files again.	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		EIP binding failure	GaussDBV5BindEIPFailed	Major	The EIP is bound to another resource.	Submit a service ticket to the O&M personnel.	The instance cannot be accessed from the public network.
		EIP unbinding failure	GaussDBV5UnbindEIPFailed	Major	The network is faulty or EIP is abnormal.	Unbind the IP address again or submit a service ticket to the O&M personnel.	IP addresses may be residual.
		Parameter template application failure	GaussDBV5ApplyParamFailed	Major	Modifying a parameter template times out.	Modify the parameter template again.	None
		Parameter modification failure	GaussDBV5UpdateInstanceParamGroupFailed	Major	Modifying a parameter template times out.	Modify the parameter template again.	None
		Backup and restoration failure	GaussDBV5RestoreFromBcakupFailed	Major	The underlying resources are insufficient or backup files fail to be downloaded.	Submit a service ticket.	The database service may be unavailable during the restoration failure.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failed to upgrade the hot patch	GaussDBV5UpgradeHotfixFailed	Major	Generally, this fault is caused by an error reported during kernel upgrade.	View the error information about the workflow and redo or skip the job.	None
		DB instance faulty	GaussDBV5FaultyDBInstance	Major	This event is a key alarm event and is reported when an instance is faulty due to a disaster or a server failure.	Submit a service ticket.	The database service may be unavailable.
		DB instance recovered	GaussDBV5InstanceRecovered	Major	GaussDB provides an HA tool for automated or manual rectification of faults. After the fault is rectified, this event is reported.	No action is required.	None
		Faulty node	GaussDBV5FaultyDBNode	Major	This event is a key alarm event and is reported when a database node is faulty due to a disaster or a server failure.	This event is a key alarm event and is reported when a database node is faulty due to a disaster or a server failure.	The database service may be unavailable.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Node recovered	GaussDBV5FaultyDBNodeRecovered	Major	GaussDB provides an HA tool for automated or manual rectification of faults. After the fault is rectified, this event is reported.	No action is required.	None

Table 10-13 Distributed Database Middleware (DDM)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
DDM	SYS.DDM (DDM 1.0)	Failed to create a DDM instance	createDdmInstanceFailed	Major	The underlying resources are insufficient.	Release resources and create the instance again.	DDM instances cannot be created.
	SYS.DDMS (DDM 2.0)	Failed to change class of a DDM instance	resizeFlavorFailed	Major	The underlying resources are insufficient.	Submit a service ticket to the O&M personnel to coordinate resources and try again.	Services on some nodes are interrupted.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failed to scale out a DDM instance	enlargeNodeFailed	Major	The underlying resources are insufficient.	Submit a service ticket to the O&M personnel to coordinate resources, delete the node that fails to be added, and add a node again.	The instance fails to be scaled out.
		Failed to scale in a DDM instance	reduceNodeFailed	Major	The underlying resources fail to be released.	Submit a service ticket to the O&M personnel to release resources.	The instance fails to be scaled in.
		Failed to restart a DDM instance	restartInstanceFailed	Major	The DB instances associated are abnormal.	Check whether DB instances associated are normal. If the instances are normal, submit a service ticket to the O&M personnel.	Services on some nodes are interrupted.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failed to create a schema	createLogicDbFailed	Major	The possible causes are as follows: • The password for the DB instance account is incorrect. • The security group of the DDM instance and the associated DB instance are incorrectly configured. As a result, the DDM instance cannot communicate with the associated DB instance.	Check whether • The username and password of the DB instance are correct. • The security groups associated with the DDM instance and underlying database instance are correctly configured.	Services cannot run properly.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failed to bind an EIP	bindEipFailed	Major	The EIP is abnormal.	Try again later. In case of emergency, contact O&M personnel to rectify the fault.	The DDM instance cannot be accessed from the Internet.
		Failed to scale out a schema	migrateLogicDbFailed	Major	The underlying resources fail to be processed.	Submit a service ticket to the O&M personnel.	The schema cannot be scaled out.
		Failed to re-scale out a schema	retryMigrateLogicDbFailed	Major	The underlying resources fail to be processed.	Submit a service ticket to the O&M personnel.	The schema cannot be scaled out.

Table 10-14 Cloud Phone Server

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
CPH	SYS.CPH	Server shutdown	cphServerOsShutdown	Major	The cloud phone server was stopped • on the management console. • by calling APIs.	Deploy service applications in HA mode. After the fault is rectified, check whether services recover.	Services are interrupted.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Server abnormal shutdown	cphServerShutdown	Major	The cloud phone server was stopped unexpectedly. Possible causes are as follows: • The cloud phone server was powered off unexpectedly. • The cloud phone server was stopped due to hardware faults.	Deploy service applications in HA mode. After the fault is rectified, check whether services recover.	Services are interrupted.
		Server reboot	cphServerOsReboot	Major	The cloud phone server was rebooted • on the management console. • by calling APIs.	Deploy service applications in HA mode. After the fault is rectified, check whether services recover.	Services are interrupted.
		Server abnormal reboot	cphServerReboot	Major	The cloud phone server was rebooted unexpectedly due to • OS faults. • hardware faults.	Deploy service applications in HA mode. After the fault is rectified, check whether services recover.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Network disconnection	cphServerlinkDown	Major	The network where the cloud phone server was deployed was disconnected. Possible causes are as follows: ● The cloud phone server was stopped unexpectedly and rebooted. ● The switch was faulty. ● The gateway node was faulty.	Deploy service applications in HA mode. After the fault is rectified, check whether services recover.	Services are interrupted.
		PCIe error	cphServerPcieError	Major	The PCIe device or main board on the cloud phone server was faulty.	Deploy service applications in HA mode. After the fault is rectified, check whether services recover.	The network or disk read/write services are affected.
		Disk error	cphServerDiskError	Major	The disk on the cloud phone server was faulty due to ● disk backplane faults. ● disk faults.	Deploy service applications in HA mode. After the fault is rectified, check whether services recover.	Data read/write services are affected, or the BMS cannot be started.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Storage error	cphServerStorageError	Major	The cloud phone server could not connect to EVS disks. Possible causes are as follows: • The SDI card was faulty. • Remote storage devices were faulty.	Deploy service applications in HA mode. After the fault is rectified, check whether services recover.	Data read/ write services are affected, or the BMS cannot be started.
		GPU offline	cphServerGpuOffline	Major	GPU of the cloud phone server was loose and disconnected.	Stop the cloud phone server and reboot it.	Faults occur on cloud phones whose GPUs are disconnected. Cloud phones cannot run properly even if they are restarted or reconfigured.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		GPU timeout	cphServerGpuTimeOut	Major	GPU of the cloud phone server timed out.	Reboot the cloud phone server.	Cloud phones whose GPUs timed out cannot run properly and are still faulty even if they are restarted or reconfigured.
		Disk space full	cphServerDiskFull	Major	Disk space of the cloud phone server was used up.	Clear the application data in the cloud phone to release space.	Cloud phone is sub-healthy, prone to failure, and unable to start.
		Disk readonly	cphServerDiskReadOnly	Major	The disk of the cloud phone server became read-only.	Reboot the cloud phone server.	Cloud phone is sub-healthy, prone to failure, and unable to start.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Cloud phone metadata damaged	cphPhoneMetaDataDamage	Major	Cloud phone metadata was damaged.	Contact O&M personnel.	The cloud phone cannot run properly even if it is restarted or reconfigured.
		GPU failed	gpuAbnormal	Critical	The GPU was faulty.	Submit a service ticket.	Services are interrupted.
		GPU recovered	gpuNormal	Informational	The GPU was running properly.	No further action is required.	None
		Kernel crash	kernelCrash	Critical	The kernel log indicated crash.	Submit a service ticket.	Services are interrupted during the crash.
		Kernel OOM	kernelOom	Major	The kernel log indicated out of memory.	Submit a service ticket.	Services are interrupted.
		Hardware malfunction	hardwareError	Critical	The kernel log indicated **Hardware Error**.	Submit a service ticket.	Services are interrupted.
		PCIe error	pcieAer	Critical	The kernel log indicated **PCIe Bus Error**.	Submit a service ticket.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		SCSI error	scsiError	Critical	The kernel log indicated SCSI Error.	Submit a service ticket.	Services are interrupted.
		Image storage became read-only	partReadOnly	Critical	The image storage became read-only.	Submit a service ticket.	Services are interrupted.
		Image storage superblock damaged	badSuperBlock	Critical	The superblock of the file system of the image storage was damaged.	Submit a service ticket.	Services are interrupted.
		Image storage /.sharedpath/master became read-only	isuladMasterReadOnly	Critical	Mount point /.shared path/master of the image storage became read-only.	Submit a service ticket.	Services are interrupted.
		Cloud phone data disk became read-only	cphDiskReadOnly	Critical	The cloud phone data disk became read-only.	Submit a service ticket.	Services are interrupted.
		Cloud phone data disk superblock damaged	cphDiskBadSuperBlock	Critical	The superblock of the file system of the cloud phone data disk was damaged.	Submit a service ticket.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-15 Layer 2 Connection Gateway (L2CG)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
L2CG	SYS.ESW	IP addresses conflicted	IPConflict	Major	A cloud server and an on-premises server that need to communicate use the same IP address.	Check the ARP and switch information to locate the servers that have the same IP address and change the IP address.	The communications between the on-premises and cloud servers may be abnormal.

Table 10-16 Virtual Private Cloud (VPC)

Event Source	Namespace	Event Name	Event ID	Event Severity
VPC	SYS.VPC	VPC deleted	deleteVpc	Major
		VPC modified	modifyVpc	Minor
		Subnet deleted	deleteSubnet	Minor
		Subnet modified	modifySubnet	Minor
		Bandwidth modified	modifyBandwidth	Minor
		VPN deleted	deleteVpn	Major
		VPN modified	modifyVpn	Minor

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-17 Elastic Volume Service (EVS)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
EVS	SYS.EVS	Update disk	updateVolume	Minor	Update the name and description of an EVS disk.	No further action is required.	None
		Expand disk	extendVolume	Minor	Expand an EVS disk.	No further action is required.	None
		Delete disk	deleteVolume	Major	Delete an EVS disk.	No further action is required.	Deleted disks cannot be recovered.
		QoS upper limit reached **NOTE** This event is no longer supported for EVS and will be removed from Cloud Eye.	reachQoS	Major	The I/O latency increases as the QoS upper limits of the disk are frequently reached and flow control triggered.	Change the disk type to one with a higher specification.	The current disk may fail to meet service requirements.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-18 Identity and Access Management (IAM)

Event Source	Namespace	Event Name	Event ID	Event Severity
IAM	SYS.IAM	Login	login	Minor
		Logout	logout	Minor
		Password changed	changePassword	Major
		User created	createUser	Minor
		User deleted	deleteUser	Major
		User updated	updateUser	Minor
		User group created	createUserGroup	Minor
		User group deleted	deleteUserGroup	Major
		User group updated	updateUserGroup	Minor
		Identity provider created	createIdentityProvider	Minor
		Identity provider deleted	deleteIdentityProvider	Major
		Identity provider updated	updateIdentityProvider	Minor
		Metadata updated	updateMetadata	Minor
		Security policy updated	updateSecurityPolicies	Major
		Credential added	addCredential	Major
		Credential deleted	deleteCredential	Major
		Project created	createProject	Minor
		Project updated	updateProject	Minor
		Project suspended	suspendProject	Major

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-19 Key Management Service (KMS)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
KMS	SYS.KMS	Key disabled	disableKey	Major	A key is disabled and cannot be used.	If the customer needs to disable the key, no action is required. However, if the key is disabled by mistake, the customer needs to log in to the DEW console and enable it again.	Services may be affected if the key is being used.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Key deletion scheduled	scheduleKeyDeletion	Minor	A key is scheduled to be deleted and cannot be used.	If the customer needs to delete the key, no action is required. However, if the deletion of the key is scheduled by mistake, the customer needs to log in to the DEW console, cancel the scheduled deletion, and enable the key again.	Services may be affected if the key is being used.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Grant retired	retireGrant	Major	A grant is retired and the key cannot be used.	If the customer needs to cancel the key grant, no action is required. However, if the grant is canceled by mistake, the customer needs to log in to the DEW console and create the grant again.	Services may be affected if the key is being used.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Grant revoked	revokeGrant	Major	A grant is revoked and the key cannot be used.	If the customer needs to cancel the key grant, no action is required. However, if the grant is canceled by mistake, the customer needs to log in to the DEW console and create the grant again.	Services may be affected if the key is being used.

Table 10-20 Object Storage Service (OBS)

Event Source	Namespace	Event Name	Event ID	Event Severity
OBS	SYS.OBS	Bucket deleted	deleteBucket	Major
		Bucket policy deleted	deleteBucketPolicy	Major
		Bucket ACL configured	setBucketAcl	Minor
		Bucket policy configured	setBucketPolicy	Minor

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Table 10-21 Cloud Eye

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
Cloud Eye	SYS.CES	Agent heartbeat interruption	agentHeartbeatInterrupted	Major	The collecting process of the Agent is faulty.	• Confirm that the Agent domain name cannot be resolved. • Check whether your account is in arrears. • The Agent process is faulty. Restart the Agent. If the Agent process is still faulty after the restart, the Agent files may be damaged. In this case, reinstall the Agent. • Confirm that the server time is inconsistent with the local standard time.	The Agent will stop collecting and reporting metrics.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						• If the DNS server is not a Huawei Cloud DNS server, run the **dig** *domain name* command to obtain the IP address of **agent.ces.myhuaweicloud.com** which is resolved by the Huawei Cloud DNS server over the intranet and then add the IP address into the corresponding **hosts** file. • Update the Agent to the latest version.	

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Agent back to normal	agentResumed	Informational	The Agent was back to normal.	No action is required.	None
		Agent faulty	agentFaulted	Major	The Agent was faulty and this status was reported to Cloud Eye.	The Agent process is faulty. Restart the Agent. If the Agent process is still faulty after the restart, the Agent files may be damaged. In this case, reinstall the Agent. Update the Agent to the latest version.	The Agent will stop collecting and reporting metrics.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Agent disconnected	agentDisconnected	Major	The communication process of the Agent is faulty.	Confirm that the Agent domain name cannot be resolved. Check whether your account is in arrears. The Agent process is faulty. Restart the Agent. If the Agent process is still faulty after the restart, the Agent files may be damaged. In this case, reinstall the Agent. Confirm that the server time is inconsistent with the local standard time. If the DNS server is not a Huawei Cloud DNS server, run the **dig** *domain-name* command to obtain the IP	The Agent will stop collecting and reporting metrics.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						address of **agent.ces.myhuaweicloud.com** which is resolved by the Huawei Cloud DNS server over the intranet, and then add the IP address into the corresponding **hosts** file. Update the Agent to the latest version.	

Table 10-22 Enterprise Switch

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
Enterprise Switch	SYS.ESW	IP addresses conflicted	IPConflict	Major	A cloud server and an on-premises server that need to communicate use the same IP address.	Check the ARP and switch information to locate the servers that have the same IP address and change the IP address.	The communications between the on-premises and cloud servers may be abnormal.

Table 10-23 Cloud Secret Management Service (CSMS)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
CSMS	SYS.CSMS	Operation on secret scheduled for deletion	operateDeletedSecret	Major	A user attempts to perform operations on a secret that is scheduled to be deleted.	Check whether the scheduled secret deletion needs to be canceled.	The user cannot perform operations on the secret scheduled to be deleted.

Table 10-24 Distributed Cache Service (DCS)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
DCS	SYS.DCS	Full sync retry during online migration	migrationFullResync	Minor	If online migration fails, full synchronization will be triggered because incremental synchronization cannot be performed.	Check whether full sync retries are triggered repeatedly. Check whether the source instance is connected and whether it is overloaded. If full sync retries are triggered repeatedly, contact O&M personnel.	The migration task is disconnected from the source instance, triggering another full sync. As a result, the CPU usage of the source instance may increase sharply.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Automatic failover	masterStandbyFailover	Minor	The master node was abnormal, promoting a replica to master.	Check whether services can recover by themselves. If applications are not recovered, restart them.	Persistent connections to the instance are interrupted.
		Memcached master/standby switchover	memcachedMasterStandbyFailover	Minor	The master node was abnormal, promoting the standby node to master.	Check whether services can recover by themselves. If applications cannot recover, restart them.	Persistent connections to the instance will be interrupted.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Redis server abnormal	redisNodeStatusAbnormal	Major	The Redis server status was abnormal.	Check whether services are affected. If yes, contact O&M personnel.	If the master node is abnormal, an automatic failover is performed. If a standby node is abnormal and the client directly connects to the standby node for read/write splitting, no data can be read.
		Redis server recovered	redisNodeStatusNormal	Major	The Redis server status recovered.	Check whether services can recover. If the applications are not reconnected, restart them.	Recover from an exception.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Sync failure in data migration	migrateSyncDataFail	Major	Online migration failed.	Reconfigure the migration task and migrate data again. If the fault persists, contact O&M personnel.	Data migration fails.
		Memcached instance abnormal	memcachedInstanceStatusAbnormal	Major	The Memcached node status was abnormal.	Check whether services are affected. If yes, contact O&M personnel.	The Memcached instance is abnormal and may not be accessed.
		Memcached instance recovered	memcachedInstanceStatusNormal	Major	The Memcached node status recovered.	Check whether services can recover. If the applications are not reconnected, restart them.	Recover from an exception.
		Instance backup failure	instanceBackupFailure	Major	The DCS instance fails to be backed up due to an OBS access failure.	Retry backup manually.	Automated backup fails.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Instance node abnormal restart	instanceNodeAbnormalRestart	Major	DCS nodes restarted unexpectedly when they became faulty.	Check whether services can recover by themselves. If applications cannot recover, restart them.	Persistent connections to the instance will be interrupted.
		Long-running Lua scripts stopped	scriptsStopped	Informational	Lua scripts that had timed out automatically stopped running.	Optimize Lua scrips to prevent execution timeout.	The execution of the lua scripts takes a long time and is forcibly interrupted. If the execution of the lua scripts takes a long time, the entire instance will be blocked.
		Node restarted	nodeRestarted	Informational	After write operations had been performed, the node automatically restarted to stop Lua scripts that had timed out.	Check whether services can recover by themselves. If applications cannot recover, restart them.	Persistent connections to the instance will be interrupted.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Bandwidth scaling	bandwidthAutoScalingTriggered	Informational	Instance bandwidth used up.	Check the services on this instance.	A bandwidth increase incurs fees.
		Specification auto scaling triggered	specAutoScalingTriggered	Informational	Specifications auto scaling was triggered.	Check the services on this instance.	The instance specifications were used up, triggering auto scaling. The billing will be changed if the instance specifications are changed.
		Specifications scaled	specAutoScalingTriggeredSuccess	Informational	The instance specifications were scaled successfully.	Check the services on this instance.	Instance scaled up. Check its information.
		Scale specifications failed	specAutoScalingTriggeredFail	Critical	The instance specifications fail to be scaled.	Contact technical support.	Instance scaling failed. Log in to the console to check whether services are affected.

Table 10-25 Intelligent Cloud Access (ICA)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
ICA	SYS.ICA	BGP peer disconnection	BgpPeerDisconnection	Major	The BGP peer is disconnected.	Log in to the gateway and locate the cause.	Service traffic may be interrupted.
		BGP peer connection success	BgpPeerConnectionSuccess	Major	The BGP peer is successfully connected.	None	None
		Abnormal GRE tunnel status	AbnormalGreTunnelStatus	Major	The GRE tunnel status is abnormal.	Log in to the gateway and locate the cause.	Service traffic may be interrupted.
		Normal GRE tunnel status	NormalGreTunnelStatus	Major	The GRE tunnel status is normal.	None	None
		WAN interface goes up	EquipmentWanGoingOnline	Major	The WAN interface goes online.	None	None
		WAN interface goes down	EquipmentWanGoingOffline	Major	The WAN interface goes offline.	Check whether the event is caused by a manual operation or device fault.	The device cannot be used.
		Intelligent enterprise gateway going online	IntelligentEnterpriseGatewayGoingOnline	Major	The intelligent enterprise gateway goes online.	None	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Intelligent enterprise gateway going offline	IntelligentEnterpriseGatewayGoingOffline	Major	The intelligent enterprise gateway goes offline.	Check whether the event is caused by a manual operation or device fault.	The device cannot be used.

Table 10-26 Host Security Service (HSS)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
HSS	SYS.HSS	HSS agent disconnected	hssAgentAbnormalOffline	Major	The communication between the agent and the server is abnormal, or the agent process on the server is abnormal.	Fix your network connection. If the agent is still offline for a long time after the network recovers, the agent process may be abnormal. In this case, log in to the server and restart the agent process.	Services are interrupted.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Abnormal HSS agent status	hssAgentAbnormalProtection	Major	The agent is abnormal probably because it does not have sufficient resources.	Log in to the server and check your resources. If the usage of memory or other system resources is too high, increase their capacity first. If the resources are sufficient but the fault persists after the agent process is restarted, submit a service ticket to the O&M personnel.	Services are interrupted.

Table 10-27 Cloud Storage Gateway (CSG)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description
CSG	SYS.CSG	Abnormal CSG process status	gatewayProcessStatusAbnormal	Major	This event is triggered when an exception occurs in the CSG process status.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Name space	Event Name	Event ID	Event Severity	Description
		Abnormal CSG connection status	gatewayToServiceConnectAbnormal	Major	This event is triggered when no CSG status report is returned for five consecutive periods.
		Abnormal connection status between CSG and OBS	gatewayToObsConnectAbnormal	Major	This event is triggered when CSG cannot connect to OBS.
		Read-only file system	gatewayFileSystemReadOnly	Major	This event is triggered when the partition file system on CSG becomes read-only.
		Read-only file share	gatewayFileShareReadOnly	Major	This event is triggered when the file share becomes read-only due to insufficient cache disk storage space.

Table 10-28 Enterprise connection

Event Source	Name space	Event Name	Event ID	Event Severity	Description	Solution	Impact
EC	SYS.EC	WAN interface goes up	EquipmentWanGoesOnline	Major	The WAN interface goes online.	None	None

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		WAN interface goes down	EquipmentWanGoesOffline	Major	The WAN interface goes offline.	Check whether the event is caused by a manual operation or device fault.	The device cannot be used.
		BGP peer disconnection	BgpPeerDisconnection	Major	BGP peer disconnection	Check whether the event is caused by a manual operation or device fault.	The device cannot be used.
		BGP peer connection success	BgpPeerConnectionSuccess	Major	The BGP peer is successfully connected.	None	None
		Abnormal GRE tunnel status	AbnormalGreTunnelStatus	Major	Abnormal GRE tunnel status	Check whether the event is caused by a manual operation or device fault.	The device cannot be used.
		Normal GRE tunnel status	NormalGreTunnelStatus	Major	The GRE tunnel status is normal.	None	None
		Intelligent enterprise gateway going online	IntelligentEnterpriseGatewayGoesOnline	Major	The intelligent enterprise gateway goes online.	None	None

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Intelligent enterprise gateway going offline	IntelligentEnterpriseGatewayGoesOffline	Major	The intelligent enterprise gateway goes offline.	Check whether the event is caused by a manual operation or device fault.	The device cannot be used.

Table 10-29 Cloud Certificate Manager (CCM)

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
CCM	SYS.CCM	Certificate revocation	CCMRevokeCertificate	Major	The certificate enters into the revocation process. Once revoked, the certificate cannot be used anymore.	Check whether the certificate revocation is really needed. Certificate revocation can be canceled.	If a certificate is revoked, the website is inaccessible using HTTPS.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Certificate auto-deployment failure	CCMAutoDeploymentFailure	Major	The certificate fails to be automatically deployed.	Check service resources whose certificates need to be replaced.	If no new certificate is deployed after a certificate expires, the website is inaccessible using HTTPS.
		Certificate expiration	CCMCertificateExpiration	Major	An SSL certificate has expired.	Purchase a new certificate in a timely manner.	If no new certificate is deployed after a certificate expires, the website is inaccessible using HTTPS.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Certificate about to expire	CCMcertificateAboutToExpiration	Major	This alarm is generated when an SSL certificate is about to expire in one week, one month, and two months.	Renew or purchase a new certificate in a timely manner.	If no new certificate is deployed after a certificate expires, the website is inaccessible using HTTPS.
		Private certificate is about to expire	CCMPrivateCertificateAboutToExpiration	Major	A private certificate is considered about to expire if it is within 7 or 30 days of its expiration date.	Purchase a new private certificate in a timely manner.	If no new private certificate has been deployed before certificate expires, services may be interrupted.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Private CA is about to expire	CCMPrivateCAAboutToExpiration	Major	A private CA is considered about to expire if it is within one month, three months, or six months of its expiration date.	Purchase a new private CA in a timely manner.	If no new CA has been deployed before a private CA expires, services may be interrupted.

Table 10-30 Workspace

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
Workspace	SYS.Workspace	Abnormal desktop heartbeat	desktopStatusAbnormal	Major	The network is disconnected or the key is lost.	1. Restart the desktop. 2. Check whether the desktop time is the current time. If not, change the desktop time to the current time. 3. Check whether special security software or network connection	The desktop cannot be accessed.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						software is installed on the desktop. If so, uninstall the software and restart the system. Alternatively, uninstall the software, reinstall the HDC Agent, and restart the system.	

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failure of assigning desktops in a desktop pool	desktopPoolAssignFailed	Major	This fault is caused by policies.	1. Adjust the desktop pool policy to ensure that there are idle desktops in the desktop pool or desktops can be automatically created. 2. If Linux desktops cannot be assigned to users with digit-only usernames, enabl	New desktops cannot be assigned.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						e the username prefix function.	

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Desktop access failure	desktopAccessFailed	Major	This fault is caused by VM stopping and restart, access gateway exceptions, or network faults.	1. If you stop or restart a VM, wait for a period of time and try again when the desktop status is normal. 2. Check the network environment and reconnect to the network when the network is normal.	The desktop cannot be accessed.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Desktop startup failure	desktopStartFailed	Major	The underlying resources are insufficient.	Wait for a while and try again.	The desktop cannot be accessed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failure of automatic desktop pool capacity expansion	desktopPoolExpandFailed	Major	The instance quota or underlying resources are insufficient.	1. If the quota is insufficient, request a higher quota (such as the number of desktops, CPUs, memory, and VPCs). 2. If underlying resources are insufficient, make purchases in the next capacity expansion period.	Desktop capacity cannot be expanded.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
						3. If automatic desktop capacity expansion is not required, disable the function of automatic desktop pool capacity expansion.	

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Failure of migrating a desktop running on a dedicated host	desktopMigrateFailed	Major	The host malfunctions.	1. Replace the faulty host with a normal one. 2. Contact technical support to rectify the host fault.	No dedicated host is available for desktop scheduling.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		User login failure	userLoginFailed	Major	The client network is disconnected, or the enterprise ID, username, or password is incorrect.	1. Check the network environment and reconnect to the network when the network is normal. 2. Check whether the enterprise ID, username, and password are valid.	Desktops or applications are unavailable.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Screen recording failure	screenRecordFailed	Major	An unknown exception occurred on the desktop.	1. Try reconnecting to the desktop. 2. Check whether special security software is installed on the desktop. If it is, uninstall the software and restart the system.	Screen recording malfunctions and the desktop is disconnected.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Screen recording upload failure	screenRecordUploadFailed	Major	The network between the desktop and OBS malfunctions.	1. Check whether the desktop network is normal. 2. Check whether security group interception has been configured. 3. Check whether interception on access control with VPCEP and OBS has been configured.	Screen recording file upload failed.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

Event Source	Namespace	Event Name	Event ID	Event Severity	Description	Solution	Impact
		Damaged screen recording file	screenRecordFileDamaged	Major	The screen recording file was maliciously damaged.	1. Wait until the screen recording function is automatically restored. 2. Check whether malicious damage occurs.	The screen recording file is abnormal.
		Abnormal agent process	agentAbnormal	Major	The agent process has been killed or reset.	The agent process can be automatically restarted after being killed.	Functions such as application control and upgrade will be affected.
		Bypassing controlled applications	appRestrictFailed	Major	The application control agent was continuously killed.	Check whether a script is used to continuously kill the application control agent.	Application control will fail.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.

11 Change History

Released On	Description
2025-05-30	This issue is the third official release.
2025-01-30	This issue is the second official release. • Added **API V2**. • Added **API V3**.
2022-09-30	This issue is the first official release.

 Copyright © Huawei Cloud Computing Technologies Co., Ltd.