Alibaba Cloud
Cloud Monitor

API Reference

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Generic conventions

Table -1: Style conventions

Style	Description	Example
⛔	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	⛔ Danger: Resetting will result in the loss of user configuration data.
⚠️	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	⚠️ Warning: Restarting will cause business interruption. About 10 minutes are required to restore business.
📋	This indicates warning informatio n, supplementary instructions, and other content that the user must understand.	ⓘ Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	📋 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus , page names, and other UI elements.	Click OK.
`Courier font`	It is used for commands.	Run the `cd  / d   C :/ windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae   log   list  -- instanceid` *Instance_ID*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig` *[-all|-t]*

Style	Description	Example
{} or {a|b}	**It indicates that it is a required value, and only one item can be selected.**	`swich` *{stand | slave}*

Contents

1 Query monitoring data

1.1 QueryMetricLast

Description

This topic describes the associated parameters used in request and response queries for the API operation for querying the latest monitoring data of a specified monitored object.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The name of the API specified by the system. Value: `QueryMetricLast`
Project	String	Yes	A namespace that indicates the product to which the monitoring data belongs. Examples values: acs_ecs_dashboard, acs_rds_da shboard.
Metric	String	Yes	The name of the corresponding metric

Parameter	Type	Required?	Description
Period	String	No	A time interval, lasting 60, 300, or 900 seconds (or 1 , 5, or 15 minutes). If unspecified, raw data is queried based on the report period stated during registration. However, if specified, the corresponding statistics are queried based on the specified statistical period.
StartTime	String	No	The start time (in milliseconds) counted from a specific time, such as 12:00:00 AM, January 1, 1970, or given as formatted data, such as 2015-10-20 00:00:00.
EndTime	String	No	The end time (in milliseconds) counted to a specific time, such as 00:00:00, January 1, 1970, or given as formatted data, such as 2015-10-20 00:00:00.

Parameter	Type	Required?	Description
Dimensions	String	No	A Key-value set for filter monitoring data. For the Key-value set, the key can use one or more dimensionKeys stated during registration, and the value is the value that corresponds to this key. An instanceId is required and it requires a JSON string to represent the Map object. Only strings can be entered. Dimensions must be entered sequence.
Length	String	No	The size of each page of monitoring data for paged queries. Default value: 1,000. This indicates 1,000 monitoring data entries per page.
Cursor	String	No	The cursor

For assigning values for the parameters of various cloud products, such as Project, Metric, Period, and Dimensions, see *Preset metric reference*.

Response parameters

Parameter	Type	Description
Period	String	A time interval lasting 60, 300, or 900 seconds (or 1, 5, or 15 minutes).
Cursor	String	The cursor

Parameter	Type	Description
Datapoints	List	A monitoring data list, in the following format: {"timestamp": 1490164200 000," Maximum": 100 ," userId": "1234567898 765432", "Minimum": 4.55," instanceId": "i-bp18abl200xk9599ck7c", "Average": 93.84}
Code	String	A status code. In the case no exception occurs, the status code 200 is returned.
Success	Boolean	Indicates whether a query is performed successfully. If the query is successful, "true" is returned, and if any exception on the server side occurs, "false" is returned.
Message	String	A description that corresponds to the returned status code. The description is null when the returned status code is 200.
RequestId	String	This field provides information for troubleshooting issues. You can send this field to Alibaba Cloud technical support in the case an issue occurs.

Examples

Request example

```
http :// metrics . cn - hangzhou . aliyuncs . com /? Action =
QueryMetri  cLast
& EndTime = 2017 – 03 – 22 + 14 % 3A30 % 3A27
& StartTime = 2017 – 03 – 22 + 14 % 3A20 % 3A27
& Period = 60
& Dimensions =% 7Binstance  Id % 3A % 27   i – abcdefgh12  3456 % 27 %
7D
```

```
& Project = acs_ecs_da  shboard
& Metric = cpu_idle
&< Common   Request   Parameters >
```

Response example

· **XML format**

```
< QueryMetri  cLastRespo  nse >
  < period > 1 </ period >
  < Datapoints >
    < Datapoints >
      < timestamp > 1490164200  000 </ timestamp >
      < Maximum > 100 </ Maximum >
      < userId > 1234567898  765432 </ userId >
      < Minimum > 4 . 55 </ Minimum >
      < instanceId > i - bp18abl200  xk9599ck7c </ instanceId >
      < Average > 93 . 84 </ Average >
    </ Datapoints >
  </ Datapoints >
  < RequestId > 021472A6 - 25E3 - 4094 - 8D00 - BA4B6A5486  C3 </
 RequestId >
  < Success > true </ Success >
  < Code > 200 </ Code >
</ QueryMetri  cLastRespo  nse >
```

· **JSON format**

```
{
    " Period ": " 60 ",
    " Datapoints ": [
        {
            " timestamp ":  1490164200  000 ,
            " Maximum ": 100 ,
            " userId ": " 1234567898  765432 ",
            " Minimum ": 25 ,
            " instanceId ":" i - bp18abl200  xk9599ck7c ",
            " Average ": 95 . 82 ,
        }
    ],
    " RequestId ": " 4E7664F2 - 9CDE - 4212 - 9318 - A0712D345A  5E
 ",
    " Success ":  true ,
    " Code ": " 200 "
}
```

1.2 QueryProjectMeta

You can call the QueryProjectMeta API to query the products that are supported by time-series metrics in CloudMonitor. Typically, this API is used together with the QueryMetricMeta API and the QueryMetricList/QueryMetricLast API.

Request types

POST | GET

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	A system required parameter. Valid value: QueryProje ctMeta.
Labels	String	No	The query results are filtered based on labels, which are in the format of [{"name":"the label name","value ":"the label value"}, {"name":"the label name","value":"the label value"}]. Supported label names include "product" and " groupFlag". The value of the label name "product" is the name of the product. The label name "groupFlag" indicates whether the product supports applicatio n groups. The corresponding label value is "true" or " false".
PageNumber	int	No	The page number. Default value: 1.
PageSize	int	No	The maximum number of entries per page. Default value: 30.

Response parameters

Parameter	Type	Description
RequestId	String	Used to track the request
Success	Boolean	Indicates whether the API is called successfully.
ErrorCode	String	The code 200 indicates a successful API call.
ErrorMessage	String	The error message
Resources	Array	The ProjectMeta list

ProjectMeta fields

Field	Type	Required?	Description
Labels	String	No	[{"name":"label name","value":"label value"}, {"name":"label name","value":"label value"}] Supported label names include "product" and "groupFlag". The value of the label name "product" is the name of the product. The label name "groupFlag" indicates whether the product supports application groups. The corresponding label value is "true" or "false".

Field	Type	Required?	Description
Project	String	No	The Project to which the metric belongs. It is used to query monitoring data.
Description	String	No	A description of the metric

Error codes

HTTPStateCode	ErrorCode	ErrorMessage
403	AccessForbidden	User not authorized to operate on the specified resource.
400	ParameterInvalid	Illegal parameters.
404	ResourceNotFound	The specified resource is not found.
500	InternalError	The request processing has failed due to some unknown error.

Request example

```
import    com . aliyuncs . DefaultAcs   Client ;
import    com . aliyuncs . IAcsClient ;
import    com . aliyuncs . cms . model . v20180308 .  QueryProje
ctMetaRequ   est ;
import    com . aliyuncs . cms . model . v20180308 .  QueryProje
ctMetaResp   onse ;
import    com . aliyuncs . profile . DefaultPro   file ;


class    Test  {
public    static   void   main ( String []  args ) {


// Initializa  tion
 DefaultPro   file   profile  =  DefaultPro   file . getProfile (" cn -
 hangzhou ", "", "");
 IAcsClient   client  =  new   DefaultAcs   Client ( profile );

// Set   the   parameter .
 QueryProje  ctMetaRequ  est   request  =  new   QueryProje
 ctMetaRequ   est ();

// Initiate   the   request .
 try  {
```

```
  QueryProje  ctMetaResp  onse   response  = client . getAcsResp  onse
  ( request );
  System . out . println (" Success :" +  response . getSuccess ());
  System . out . println (" ErrorCode :" +  response . getErrorCo  de
  ());
  System . out . println (" ErrorMessa  ge :" +  response . getErrorMe
  ssage ());
  System . out . println (" RequestId :" +  response . getRequest  Id
  ());
  } catch ( Exception   e ) {
  e . printStack  Trace ();
  }
  }
  }
```

Response example

```
{
" RequestId ": " D3DBF9F5 – 7C4D – 4A67 – B869 – 097C069C48  1D ",
" ErrorCode ":  200 ,
" Success ":  true ,
" Resources ": {
" Resource ": [
{
" Descriptio  n ": " AnalyticDB ",
" Labels ": "[{\" name \":\" product \",\" value \":\" ADS \"},{\"
 name \":\" groupFlag \",\" value \":\" true \"}]",
" Project ": " acs_ads "
},
{
" Descriptio  n ": " API   Gateway ",
" Labels ": "[{\" name \":\" product \",\" value \":\" APIGateway \"},
{\" name \":\" groupFlag \",\" value \":\" true \"}]",
" Project ": " acs_apigat  eway_dashb  oard "
},
{
" Descriptio  n ": " Internet  Shared  Bandwidth ",
" Labels ": "[{\" name \":\" product \",\" value \":\" InternetSh
 aredBandwi  dth \"},{\" name \":\" groupFlag \",\" value \":\" true
 \"}]",
" Project ": " acs_bandwi  dth_packag  e "
},
{
" Descriptio  n ": " CDN ",
" Labels ": "[{\" name \":\" product \",\" value \":\" CDN \"},{\"
 name \":\" groupFlag \",\" value \":\" true \"}]",
" Project ": " acs_cdn "
},
{
" Descriptio  n ": " Cloud  Enterprise  Network ",
" Labels ": "[{\" name \":\" product \",\" value \":\" CEN \"},{\"
 name \":\" groupFlag \",\" value \":\" false \"}]",
" Project ": " acs_cen "
}
]
}
```

```
    }
```

1.3 QueryMetricList

Description

> This topic describes the associated parameters used in request and response queries
> for the API operation for querying the monitoring data of a specified product instance
> during a specified period of time.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The name of the API specified by the system. Value: `QueryMetricList`.
Project	String	Yes	A namespace that indicates the product to which the monitoring data belongs. Example values: acs_ecs_dashboard, acs_rds_da shboard.
Metric	String	Yes	The name of a metric

Parameter	Type	Required?	Description
Period	String	No	A time interval lasting 60, 300, or 900 seconds (1, 5, or 15 minutes). If unspecified, raw data is queried based on the report period stated during registration. However, if specified, the corresponding statistics are queried based on the specified statistical period.
StartTime	String	No	The start time (in milliseconds) counted from a specific time, such as 00:00:00, January 1, 1970, or given as formatted value, such as 2015-10-20 00:00:00.
EndTime	String	No	End time (in milliseconds) counted to a specific time, such as 00:00:00, January 1, 1970, or given as formatted data, such as 2015-10-20 00:00:00.

Parameter	Type	Required?	Description
Dimensions	String	No	A Key-value set for filtering monitoring data, such as instanceId:XXXXXX. A key-value set must be a JSON string. Dimensions must be entered in sequence.
Length	String	No	The size of each page of monitoring data for paged queries. Default value: 1,000.
Cursor	String	No	The cursor

Notes

· For more information about how to assign values for parameters, such as Project, Metric, Period, and Dimensions, see *Preset metric reference*.

· The value of `StartTime` cannot be greater than or equal to that of `EndTime` .

· `Cursor` is a parameter in paging mode. If this parameter returns with a value, the current page is not the last page. If this parameter is null, the current page is the last page.

· The value of `Period` can be 60, 300, or 900 seconds (or 1, 5, or 15 minutes). The maximum return value is 1,000. In the case your return value is 1,000, we recommend that you set the `Period` parameter to a higher value (such as from 60 to 300) because return values higher than 1,000 will also be returned as the maximum value of 1,000, thereby causing uncertainty about the actual figures monitored. Therefore, setting a higher value will allow you to see an accurate number of data records.

· This API can also be called by using an authorized RAM account. The operation descriptor during authorization is `cms : QueryMetri  cList` , and the resource descriptor is `*`.

Response parameters

Parameter	Type	Description
Period	String	A time interval lasting 60, 300, or 900 seconds (or 1, 5 , or 15 minutes).
Cursor	String	The cursor
Datapoints	String	A monitoring data list, in the following format: { " timestamp": 1490164200 000, "Maximum": 100 , "userId": 1234567898 765432, "Minimum": 4.55, " instanceId": "i-bp18abl200 xk9599ck7c", "Average": 93 .84 }.
Code	String	A status code. In the case no exception occurs, the status code 200 is returned .
Success	Boolean	Indicates whether a query is performed successfully . If the query is successful , true is returned, and if any exception on the server side occurs, false is returned.
Message	String	A description that corresponds to the returned status code. The description is null when the returned status code is 200.
RequestId	String	This field provides information for troublesho oting issues. You can send this field to Alibaba Cloud technical support in the case an issue occurs.

Examples

Request example

```
http :// metrics . cn - hangzhou . aliyuncs . com /? Action =
QueryMetri  cList
& EndTime = 2017 - 05 - 17 + 11 % 3A30 % 3A27
& StartTime = 2017 - 05 - 17 + 11 % 3A20 % 3A27
& Period = 60
& Dimensions =% 7B % 22instance  Id % 22 % 3A % 22i - abcdefgh12  3456
 % 22 % 7D
& Timestamp = 2017 - 03 - 22T09 % 3A30 % 3A57Z
& Project = acs_ecs_da  shboard
& Metric = cpu_idle
```

Response examples

· **XML format**

```
< QueryMetri  cListRespo  nse >
  < Period > 60 </ Period >
  < Datapoints >
    < Datapoints >
      < timestamp > 1490152860  000 </ timestamp >
      < Maximum > 100 </ Maximum >
      < userId >  1234567898  765432 </ userId >
      < Minimum > 93 . 1 </ Minimum >
      < instanceId > i - abcdefgh12  3456 </ instanceId >
      < Average > 99 . 52 </ Average >
    </ Datapoints >
    < Datapoints >
      < timestamp > 1490152920  000 </ timestamp >
      < Maximum > 100 </ Maximum >
      < userId >  1234567898  765432  </ userId >
      < Minimum > 92 . 59 </ Minimum >
      < instanceId > i - abcdefgh12  3456 </ instanceId >
      < Average > 99 . 49 </ Average >
    </ Datapoints >
    < Datapoints >
      < timestamp > 1490152980  000 </ timestamp >
      < Maximum > 100 </ Maximum >
      < userId > 1234567898  765432 </ userId >
      < Minimum > 92 . 86 </ Minimum >
      < instanceId > i - abcdefgh12  3456 </ instanceId >
      < Average > 99 . 44 </ Average >
    </ Datapoints >
    < Datapoints >
      < timestamp > 1490153040  000 </ timestamp >
      < Maximum > 100 </ Maximum >
      < userId > 1234567898  765432 </ userId >
      < Minimum > 91 . 43 </ Minimum >
      < instanceId > i - abcdefgh12  3456 </ instanceId >
      < Average > 99 . 36 </ Average >
    </ Datapoints >
    < Datapoints >
      < timestamp > 1490153100  000 </ timestamp >
      < Maximum > 100 </ Maximum >
      < userId > 1234567898  765432 </ userId >
      < Minimum > 93 . 55 </ Minimum >
      < instanceId > i - abcdefgh12  3456 </ instanceId >
      < Average > 99 . 51 </ Average >
```

```
      </ Datapoints >
      < Datapoints >
        < timestamp > 1490153160  000 </ timestamp >
        < Maximum > 100 </ Maximum >
        < userId > 1234567898  765432 </ userId >
        < Minimum > 93 . 1 </ Minimum >
        < instanceId > i – abcdefgh12  3456 </ instanceId >
        < Average > 99 . 52 </ Average >
      </ Datapoints >
      < Datapoints >
        < timestamp > 1490153220  000 </ timestamp >
        < Maximum > 100 </ Maximum >
        < userId > 1234567898  765432 </ userId >
        < Minimum > 92 . 59 </ Minimum >
        < instanceId > i – abcdefgh12  3456 </ instanceId >
        < Average > 99 . 42 </ Average >
      </ Datapoints >
      < Datapoints >
        < timestamp > 1490153280  000 </ timestamp >
        < Maximum > 100 </ Maximum >
        < userId > 1234567898  765432 </ userId >
        < Minimum > 91 . 18 </ Minimum >
        < instanceId > i – abcdefgh12  3456 </ instanceId >
        < Average > 99 . 34 </ Average >
      </ Datapoints >
      < Datapoints >
        < timestamp > 1490153340  000 </ timestamp >
        < Maximum > 100 </ Maximum >
        < userId > 1234567898  765432 </ userId >
        < Minimum > 92 . 86 </ Minimum >
        < instanceId > i – abcdefgh12  3456 </ instanceId >
        < Average > 99 . 46 </ Average >
      </ Datapoints >
      < Datapoints >
        < timestamp > 1490153400  000 </ timestamp >
        < Maximum > 100 </ Maximum >
        < userId > 1234567898  765432 </ userId >
        < Minimum > 91 . 18 </ Minimum >
        < instanceId > i – abcdefgh12  3456 </ instanceId >
        < Average > 99 . 35 </ Average >
      </ Datapoints >
    </ Datapoints >
    < RequestId > 6661EC50 – 8625 – 4161 – B349 – E0DD59002A  B7 </
  RequestId >
    < Success > true </ Success >
    < Code > 200 </ Code >
  </ QueryMetri  cListRespo  nse >
```

· **JSON format**

```
{
    " Period ": " 60 ",
    " Datapoints ": [
        {
            " timestamp ":  1490152860  000 ,
            " Maximum ":  100 ,
            " userId ": " 1234567898  765432 ",
            " Minimum ":  93 . 1 ,
            " instanceId ": " i – abcdefgh12  3456 ",
            " Average ":  99 . 52
        },
        {
            " timestamp ":  1490152920  000 ,
```

```
                        " Maximum ":  100 ,
                        " userId ": " 1234567898  765432 ",
                        " Minimum ":  92 . 59 ,
                        " instanceId ": " i – abcdefgh12  3456 ",
                        " Average ":  99 . 49
                },
                {
                        " timestamp ":  1490152980  000 ,
                        " Maximum ":  100 ,
                        " userId ": " 1234567898  765432 ",
                        " Minimum ":  92 . 86 ,
                        " instanceId ": " i – abcdefgh12  3456 ",
                        " Average ":  99 . 44
                },
                {
                        " timestamp ":  1490153040  000 ,
                        " Maximum ":  100 ,
                        " userId ": " 1234567898  765432 ",
                        " Minimum ":  91 . 43 ,
                        " instanceId ": " i – abcdefgh12  3456 ",
                        " Average ":  99 . 36
                },
                {
                        " timestamp ":  1490153100  000 ,
                        " Maximum ":  100 ,
                        " userId ": " 1234567898  765432 ",
                        " Minimum ":  93 . 55 ,
                        " instanceId ": " i – abcdefgh12  3456 ",
                        " Average ":  99 . 51
                },
                {
                        " timestamp ":  1490153160  000 ,
                        " Maximum ":  100 ,
                        " userId ": " 1234567898  765432 ",
                        " Minimum ":  93 . 1 ,
                        " instanceId ": " i – abcdefgh12  3456 ",
                        " Average ":  99 . 52
                },
                {
                        " timestamp ":  1490153220  000 ,
                        " Maximum ":  100 ,
                        " userId ": " 1234567898  765432 ",
                        " Minimum ":  92 . 59 ,
                        " instanceId ": " i – abcdefgh12  3456 ",
                        " Average ":  99 . 42
                },
                {
                        " timestamp ":  1490153280  000 ,
                        " Maximum ":  100 ,
                        " userId ": " 1234567898  765432 ",
                        " Minimum ":  91 . 18 ,
                        " instanceId ": " i – abcdefgh12  3456 ",
                        " Average ":  99 . 34
                },
                {
                        " timestamp ":  1490153340  000 ,
                        " Maximum ":  100 ,
                        " userId ": " 1234567898  765432 ",
                        " Minimum ":  92 . 86 ,
                        " instanceId ": " i – abcdefgh12  3456 ",
                        " Average ":  99 . 46
                },
                {
                        " timestamp ":  1490153400  000 ,
```

```
            " Maximum ":  100 ,
            " userId ": " 1234567898  765432 ",
            " Minimum ":  91 . 18 ,
            " instanceId ": " i – abcdefgh12  3456 ",
            " Average ":  99 . 35
        }
    ],
    " RequestId ": " 6A5F022D – AC7C – 460E – 94AE – B9E75083D0  27
 ",
    " Success ":  true ,
    " Code ": " 200 "
}
```

2 Call API operations

Request structure

CloudMonitor APIs are remote procedure call (RPC) APIs. You can call these APIs by sending HTTP requests.

The request structure is as follows:

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

In this request URL:

· `Endpoint` is a cloud service access point. The endpoint of CloudMonitor is `metrics . aliyuncs . com` . For more information about the endpoints of each region, see *Endpoint*.

· `Action` is an operation performed, such as calling the `QueryMetri cList` API to query the monitoring data of an instance.

· `Version` is the version of the API used. The current version is 2017-03-01.

· `Parameters` are request parameters, which by convention are separated by ampersands (&). Request parameters consist of common parameters and API-specific parameters. Common parameters include the API version number, authentication information, among other information.

The following is an example of how to call the `QueryMetri cList` API to query the monitoring data of an instance.

```
http :// metrics . cn - hangzhou . aliyuncs . com /? Action =
QueryMetri  cList
& EndTime = 2017 - 05 - 17 + 11 % 3A30 % 3A27
& StartTime = 2017 - 05 - 17 + 11 % 3A20 % 3A27
& Period = 60
& Dimensions =% 7B % 22instance  Id % 22 % 3A % 22i - abcdefgh12  3456
 % 22 % 7D
& Timestamp = 2017 - 03 - 22T09 % 3A30 % 3A57Z
& Project = acs_ecs_da  shboard
& Metric = cpu_idle
```

Endpoint

Region	Endpoint
China East 1 (Hangzhou)	metrics.cn-hangzhou.aliyuncs.com
China East 2 (Shanghai)	metrics.cn-shanghai.aliyuncs.com

Region	Endpoint
China North 1 (Qingdao)	metrics.cn-qingdao.aliyuncs.com
China North 2 (Beijing)	metrics.cn-beijing.aliyuncs.com
China South 1 (Shenzhen)	metrics.cn-shenzhen.aliyuncs.com
China North 3 (Zhangjiakou)	metrics.cn-zhangjiakou.aliyuncs.com
Hong Kong	metrics.cn-hongkong.aliyuncs.com
Asia Pacific SE 1 (Singapore)	metrics.ap-southeast-1.aliyuncs.com
US West 1 (Silicon Valley)	metrics.us-west-1.aliyuncs.com
US East 1 (Virginia)	metrics.us-east-1.aliyuncs.com
EU Central 1 (Frankfurt)	metrics.eu-central-1.aliyuncs.com
Asia Pacific SE 2 (Sydney)	metrics.ap-southeast-2.aliyuncs.com
Middle East 1 (Dubai)	metrics.me-east-1.aliyuncs.com
Asia Pacific NE 1 (Tokyo)	metrics.cn-hangzhou.aliyuncs.com
Asia Pacific SE 3 (Kuala Lumpur)	metrics.ap-southeast-3.aliyuncs.com
China North 5 (Hohhot)	metrics.cn-huhehaote.aliyuncs.com
Asia Pacific SE 5 (Jakarta)	metrics.ap-southeast-5.aliyuncs.com
Asia Pacific SOU 1 (Mumbai)	metrics.ap-south-1.aliyuncs.com
UK (London)	metrics.eu-west-1.aliyuncs.com

📋 Note:

When you call the API operation for querying the monitoring data in Asia Pacific NE 1 (Tokyo), use the endpoint in China East 1 (Hangzhou).

API authorization

For better security, we recommend that you use a RAM user account to call API operations. However, before using a RAM account to call an SLB API operation, you must grant the RAM user the corresponding permission by creating an authorization policy and attaching that policy to the RAM user.

API signature

To ensure that API operations are securely called, Alibaba Cloud authenticates each API request by using an API signature. When you manually initiate an API request, follow the definition of *RFC 2104*, and use AccessSecret to evaluate the HMAC values,

and use these values as signatures for the encoded and sorted entire request string. For more information, see *Sign RPC APIs*.

When calling an RPC API, you need to add the signature to your API request using the following format:

```
https :// endpoint /? SignatureV  ersion = 1 . 0 & SignatureM  ethod
= HMAC – SHA1 & Signature = CT9X0VtwR8  6fNWSnsc6v  8YGOjuE % 3D &
SignatureN  once = 3ee8c1b8 – 83d3 – 44af – a94f – 4e0ad82fd6  cf
```

Consider the API operation `QueryMetri  cList` as an example, and assume that the Accesskey ID is `testid` and AccessKey Secret is `testsecret`. The request URL before the signature is as follows:

```
http :// metrics . aliyuncs . com /? Action = QueryMetri  cList &
period = 60 & StartTime = 2016 – 03 – 22T11 : 30 : 27Z & Dimensions
={ instanceId :' i – abcdefgh12  3456 '}& Timestamp = 2017 – 03 –
23T06 : 59 : 55Z & Project = acs_ecs_da  shboard & SignatureV  ersion
= 1 . 0 & Format = JSON & SignatureN  once = aeb03861 – 611f – 43c6
– 9c07 – b752fad3dc  06 & Version = 2015 – 10 – 20 & AccessKeyI  d =
TestId & Metric = cpu_idle & SignatureM  ethod = HMAC – SHA1
```

The calculated signature string StringToSign is as follows:

```
GET &% 2F & AccessKeyI  d % 3DTestId & Action % 3DQueryMet  ricList
& Dimensions % 3D % 257B % 2522instan  ceId % 2522 % 253A % 2522i
– abcdefgh12  3456 % 2522 % 257D & Format % 3DJSON & Metric %
3Dcpu_idle & Period % 3D60 & Project % 3Dacs_ecs_  dashboard &
SignatureM  ethod % 3DHMAC – SHA1 & SignatureN  once % 3Daeb03861 –
611f – 43c6 – 9c07 – b752fad3dc  06 & SignatureV  ersion % 3D1 . 0
& StartTime % 3D2016 – 03 – 22T11 % 253A30 % 253A27Z & Timestamp %
3D2017 – 03 – 23T06 % 253A59 % 253A55Z & Version % 3D2015 – 10 – 20
```

Given that the AccessKey Secret is `testsecret` and the key used for HMAC calculation is `testsecret &`, the signature value is as follows:

```
TLj49H / wqBWGJ7RK0  r84SN5IDfM =
```

Add the signature as a signature parameter to the URL request. The final URL is obtained as follows:

```
http :// metrics . cn – hangzhou . aliyuncs . com /? Action =
QueryMetri  cList & StartTime = 2016 – 03 – 22T11 % 3A30 % 3A27Z &
Period = 60 & Dimensions =% 7B % 22instance  Id % 22 % 3A % 22i –
abcdefgh12  3456 % 22 % 7D & Timestamp = 2017 – 03 – 23T06 % 3A59 %
3A55Z & Project = acs_ecs_da  shboard & SignatureV  ersion = 1 . 0
& Format = JSON & SignatureN  once = aeb03861 – 611f – 43c6 – 9c07
– b752fad3dc  06 & Version = 2015 – 10 – 20 & AccessKeyI  d = TestId
& Metric = cpu_idle & SignatureM  ethod = HMAC – SHA1 & Signature =
TLj49H % 2FwqBWGJ7R  K0r84SN5ID  fM % 3D
```

3 Preset metric reference

Note

- `Sum` is the sum of values obtained in a statistical period. For example, for ECS internet traffic measurements, the unit is KB/min and the statistical period is 5 minutes. Therefore, the returned result is the total traffic in 5 minutes.
- OpenAPI supports the query of metric data from the last 31 days.
- The dimensions for each parameter is a JSON string. An example format is: `{"` `instanceId ":" i – 23gyb3kkd "}`.

ECS metrics

- Basic metrics

  - The CloudMonitor agent is required for obtaining and querying ECS basic metric data.

  - The `Project` is named `acs_ecs_da  shboard`, the statistical period is 60 seconds (or 1 minute), and the value for the period is 60 or an integer that is a multiple of 60.

  - The `instanceId` value for `Dimensions` is the instanceId of an ECS instance.

Metric	Description	Unit	Dimension	Statistics
CPUUtilization	CPU usage	%	InstanceId	Average, minimum, and maximum
InternetInRate	Inbound bandwidth (Internet)	bit/s	InstanceId	Average, minimum, and maximum
IntranetInRate	Inbound bandwidth (intranet)	bit/s	InstanceId	Average, minimum, and maximum
InternetOu tRate	Outbound bandwidth (Internet)	bit/s	InstanceId	Average, and minimum, and maximum
IntranetOu tRate	Outbound bandwidth (intranet)	bit/s	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimension	Statistics
InternetOutRate_Percent	Outbound bandwidth usage (Internet)	%	InstanceId	Average
DiskReadBPS	Total system disk read BPS	byte/s	InstanceId	Average, minimum, and maximum
DiskWriteBPS	Total system disk write BPS	byte/s	InstanceId	Average, minimum, and maximum
DiskReadIOPS	System disk read IOPS	count/s	InstanceId	Average, minimum, and maximum
DiskWriteIOPS	System disk write IOPS	count/s	InstanceId	Average, minimum, and maximum
VPC_PublicIP_InternetInRate	VPC - Inbound bandwidth (Internet)	bit/s	InstanceId	Average, minimum, and maximum
VPC_PublicIP_InternetOutRate	VPC - Outbound bandwidth (Internet)	bit/s	InstanceId	Average, minimum, and maximum
VPC_PublicIP_InternetOutRate_Percent	VPC - Outbound bandwidth usage (Internet)	%	InstanceId	Average

· Operating system metrics

The minimum value of the `Period` is 15 seconds.

Metric	Description	Unit	Dimensions	Statistics
cpu_idle	The percentage of CPU that is idle	%	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimensions	Statistics
cpu_system	The percentag of CPU occupied by the kernel space	%	InstanceId	Average, minimum, and maximum
cpu_user	The percentage of CPU occupied by the user space	%	InstanceId	Average, minimum, and maximum
cpu_wait	The percentage of CPU pending I/O operations	%	InstanceId	Average, minimum, and maximum
cpu_other	The percentage of CPU usage occypied by other tasks. (This is calculated by using the formula: Nice + SoftIrq + Irq + Stolen)	%	InstanceId	Average, minimum, and maximum
cpu_total	The total percentage of CPU usage occupied	%	InstanceId	Average, minimum, and maximum
memory_tot alspace	Total memory	Byte	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimensions	Statistics
memory_use dspace	Total used memory t. (This is calculated by using the formula : Memory occupied by user programs + Buffer + Cache)	Byte	InstanceId	Average, minimum, and maximum
memory_act ualusedspace	Actual memory usage occupied by the user. (This is calculated by using the formula: Used – Buffer – Cache)	Byte	InstanceId	Average, minimum, and maximum
memory_fre espace	The amount of available memory	Byte	InstanceId	Average, minimum, and maximum
memory_fre eutilization	The percentage of available memory	%	InstanceId	Average, minimum, and maximum
memory_use dutilization	Memory usage	%	InstanceId	Average, minimum, and maximum
load_1m	The average system load during the past 1 minute. This metric is not available for Windows instances.	N/A	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimensions	Statistics
load_5m	The average system load during the past 5 minutes. This metric is not available for Windows instances.	N/A	InstanceId	Average, minimum, and maximum
load_15m	The average system load during the past 15 minutes. This metric is not available for Windows instances.	N/A	InstanceId	Average, minimum, and maximum
diskusage_used	The amount of used disk space	Byte	InstanceId, device	Average, minimum, and maximum
diskusage_utilization	Disk usage percentage	%	InstanceId, device	Average, minimum, and maximum
diskusage_free	The calculated rate of available disk space	Byte/s	InstanceId, device	Average, minimum, and maximum
diskusage_total	The total amount of disk storage	Byte	InstanceId, device	Average, minimum, and maximum
disk_readbytes	The number of bytes read from the disk per second	Byte/s	InstanceId, device	Average, minimum, and maximum
disk_write bytes	The number of bytes written to the disk per second	Byte/s	InstanceId, device	Average, minimum, and maximum

Metric	Description	Unit	Dimensions	Statistics
disk_readiops	The number of read requests sent to the disk per second	request/s	InstanceId, device	Average, minimum, and maximum
disk_writeiops	The number of write requests sent to the disk per second	request/s	InstanceId, device	Average, minimum, and maximum
fs_inodeut ilization	The percentage of inode usage	%	InstanceId, device	Average, minimum, and maximum
networkin_ rate	The number of bits received by the network adapter per second (the upstream bandwidth of the network card)	bit/s	InstanceId, device	Average, minimum, and maximum
networkout _rate	The number of bits sent by the network adapter per second (the downstream bandwidth of the network card)	bit/s	InstanceId, device	Average, minimum, and maximum
networkin_ packages	The number of packets received by the network adapter per second	packet/s	InstanceId, device	Average, minimum, and maximum
networkout _packages	The number of packets sent by the network adapter per second	packet/s	InstanceId, device	Average, minimum, and maximum

Metric	Description	Unit	Dimensions	Statistics
networkin_errorpackages	The number of incoming error packets detected by the drive	packet/s	InstanceId, device	Average, minimum, and maximum
networkout_errorpackages	The number of outgoing error packets detected by the drive	packet/s	InstanceId, device	Average, minimum, and maximum
net_tcpconnection	The number of TCP connections in several states . including , LISTEN, SYN_SENT, ESTABLISHED, SYN_RECV, FIN_WAIT1, CLOSE_WAIT, FIN_WAIT2, LAST_ACK, TIME_WAIT, CLOSING, and CLOSED	connection	InstanceId, state	Average, minimum, and maximum

ApsaraDB for RDS metrics

- The `Project` is named `acs_rds_da shboard`, the default statistical period is 300 seconds (or 5 minutes), and the value of the `Period` is 300 or an integer that is a multiple of 300.

- If 1-minute minimum monitoring frequency is enabled on the RDS console, the minimum statistical period is 1 minute, or 60 seconds.

- The `instanceId` value for `Dimensions` is the instanceId of an RDS instance.

Metric	Description	Unit	Dimension	Statistics
CpuUsage	The percentage of CPU usage	%	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimension	Statistics
DiskUsage	The percentage of disk usage	%	InstanceId	Average, minimum, and maximum
IOPSUsage	The percentage of IOPS usage	%	InstanceId	Average, minimum, and maximum
Connection Usage	The percentage of connection usage	%	InstanceId	Average, minimum, and maximum
DataDelay	Read-only instance latency	second	InstanceId	Average, minimum, and maximum
MemoryUsage	The percentage of memory usage	%	InstanceId	Average, minimum, and maximum
MySQL_Netw orkInNew	The inbound network traffic per second for MySQL	bit/s	InstanceId	Average, minimum, and maximum
MySQL_Netw orkOutNew	The outbound network traffic per second for MySQL	bit/s	InstanceId	Average, minimum, and maximum
MySQL_Acti veSessions	Active sessions for MySQL	count	InstanceId	Average, minimum, and maximum
SQLServer_ NetworkInNew	Inbound network traffic per second for an SQL server	bit/s	InstanceId	Average, minimum, and maximum
SQLServer_ NetworkOut New	Outbound network traffic per second for an SQL server	bit/s	InstanceId	Average, minimum, and maximum

SLB metrics

- The `Project` is named `acs_slb_da  shboard`, the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.
- The `instanceId` value for `Dimensions` is the instanceId of an SLB instance.
- The `port` value for `Dimensions` is the port number of an SLB instance.
- The `VIP` value for `Dimensions` is the endpoint of an SLB instance.

- Layer-4 protocol metrics

Metric	Description	Unit	Dimensions	Statistics
HeathyServerCount	The number of healthy backend ECS instances	count	InstanceId	Average, minimum, and maximum
UnhealthyServerCount	The number of faulty backend ECS instances	count	InstanceId	Average, minimum, and maximum
PacketTX	The number of outgoing packets per second on a port	count/s	InstanceId, port, and VIP	Average, minimum, and maximum
PacketRX	The number of incoming packets per second on a port	count/s	InstanceId, port, and VIP	Average, minimum, and maximum
TrafficRXNew	The inbound data volume per second on a port	bit/s	InstanceId, port, and VIP	Average, minimum, and maximum
TrafficTXNew	The outbound data volume per second on a port	bit/s	InstanceId, port, and VIP	Average, minimum, and maximum

Metric	Description	Unit	Dimensions	Statistics
ActiveConnection	The number of active connections on a port (the number of connections that clients set up to access SLB)	count	InstanceId, port, and VIP	Average, minimum, and maximum
InactiveConnection	The number of inactive connections on the port (the number of connections that are idle after access to SLB)	count	InstanceId, port, and VIP	Average, minimum, and maximum
NewConnection	The number of new connections on the port	count	InstanceId, port, and VIP	Average, minimum, and maximum
MaxConnection	The number of concurrent connections on the port	count	InstanceId, port, and VIP	Average, minimum, and maximum
DropConnection	The number of dropped connections per second	count/s	InstanceId, port, and VIP	Average, minimum, and maximum
DropPacketRX	The number of dropped incoming packets per second	count/s	InstanceId, port, and VIP	Average, minimum, and maximum
DropPacketTX	The number of dropped outgoing packets per second	count/s	InstanceId, port, and VIP	Average, minimum, and maximum

Metric	Description	Unit	Dimensions	Statistics
DropTrafficRX	The number of dropped incoming bits per second	bit/s	InstanceId, port, and VIP	Average, minimum, and maximum
DropTrafficTX	The number of dropped outgoing bits per second	bit/s	InstanceId, port, and VIP	Average, minimum, and maximum
InstanceActiveConnection	The number of active connections per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstanceDropConnection	Th number of dropped connections per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstanceDropPacketRX	The number of dropped incoming packets per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstanceDropPacketTX	The number of dropped outgoing packets per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstanceDropTrafficRX	The number of dropped incoming bits per second on an instance	bit/s	InstanceId	Average, minimum, and maximum
InstanceDropTrafficTX	The number of dropped outgoing bits per second on an instance	bit/s	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimensions	Statistics
InstanceIn activeConn ection	The number of inactive connections per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstanceMa xConnection	The maximum concurrent connections per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstanceNe wConnection	The number of new connections per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstancePa cketRX	The number of incoming packets per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstancePa cketTX	The number of outgoing packets per second on an instance	count/s	InstanceId	Average, minimum, and maximum
InstanceTr afficRX	The number of incoming bits per second on an instance	bit/s	InstanceId	Average, minimum, and maximum
InstanceTr afficTX	The number of outgoing bits per second on an instance	bit/s	InstanceId	Average, minimum, and maximum

· Layer-7 protocol metrics

Metric	Description	Unit	Dimensions	Statistics
QPS	Port QPS	count/s	InstanceId, port, and VIP	Average

Metric	Description	Unit	Dimensions	Statistics
RT	Port response time	ms	InstanceId, port, and VIP	Average
StatusCode2xx	Port status codes of the format 2xx	count/s	InstanceId, port, and VIP	Average
StatusCode3xx	Port status codes of the format 3xx	count/s	InstanceId, port, and VIP	Average
StatusCode4xx	Port status codes of the format 4xx	count/s	InstanceId, port, and VIP	Average
StatusCode5xx	Port status codes of the format 5xx	count/s	InstanceId, port, and VIP	Average
StatusCode Other	Port status codes of other formats	count/s	InstanceId, port, and VIP	Average
UpstreamCode4xx	Port upstream status codes of the format 4xx	count/s	InstanceId, port, and VIP	Average
UpstreamCode5xx	Port upstream status codes of the format 5xx	count/s	InstanceId, port, and VIP	Average
UpstreamRt	Port upstream response time	ms	InstanceId, port, and VIP	Average
InstanceQps	Instance QPS	count/s	InstanceId	Average
InstanceRt	Instance response time	ms	InstanceId	Average
InstanceStatusCode2xx	Instance status codes of the format2xx	count/s	InstanceId	Average
InstanceStatusCode3xx	Instance status codes of the format 3xx	count/s	InstanceId	Average
InstanceStatusCode4xx	Instance status codes of the format 4xx	count/s	InstanceId	Average

Metric	Description	Unit	Dimensions	Statistics
InstanceSt atusCode5xx	Instance status codes of the format 5xx	count/s	InstanceId	Average
InstanceSt atusCodeOther	Instance status codes of the format Other	count/s	InstanceId	Average
InstanceUp streamCode 4xx	Instance upstream status codes of the format 4xx	count/s	InstanceId	Average
InstanceUp streamCode 5xx	Instance upstream status codes of the format 5xx	count/s	InstanceId	Average
InstanceUp streamRt	Instance Upstream response time	ms	InstanceId	Average

OSS metrics

For details, see *OSS metric reference*.

ApsaraDB for Memcache metrics

· New version metrics

- The `Project` is named `acs_memcac he`, the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

- The `instanceId` value for `Dimensions` is the instanceId of a Memcache instance.

Metric	Description	Unit	Dimension	Statistics
Connection Usage	The connection usage	%	InstanceId	Average, minimum, and maximum
UsedConnec tion	The number of used connections	count	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimension	Statistics
CpuUsage	CPU usage	%	InstanceId	Average, minimum, and maximum
FailedCount	The number of operation failures	count/s	InstanceId	Average, minimum, and maximum
IntranetIn	The write network bandwidth	Byte/s	InstanceId	Average, minimum, and maximum
IntranetIn Ratio	The write bandwidth usage	%	InstanceId	Average, minimum, and maximum
IntranetOut	The read network bandwidth	Byte/s	InstanceId	Average, minimum, and maximum
IntranetOu tRatio	The read bandwidth usage	%	InstanceId	Average, minimum, and maximum
MemoryUsage	Memory usage	%	InstanceId	Average, minimum, and maximum
UsedMemory	Used memory	Byte	InstanceId	Average, minimum, and maximum

· Old version metrics

  - The `Project` is named `acs_ocs` , the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

  - The `instanceId` value for `Dimensions` is the instanceId of an ApsaraDB for Memcache instance.

Metric	Description	Unit	Dimension	Statistics
Evict	The amount of data evicted from the cache per second	count/s	InstanceId	Average, Minimum, and Maximum

Metric	Description	Unit	Dimension	Statistics
HitRate	The cache hit rate	%	InstanceId	Average, minimum, and maximum
IntranetIn	The cache input bandwidth	Byte/s	InstanceId	Average, minimum, and maximum
IntranetOut	The cache output bandwidth	Byte	InstanceId	Average, minimum, and maximum
ItemCount	The number of cache data items	count	InstanceId	Average, minimum, and maximum
UsedMemCache	The used cache	Byte	InstanceId	Average, minimum, and maximum
UsedQps	The used QPS	count	InstanceId	Average, minimum, and maximum

EIP metrics

- The `Project` is named `acs_vpc_ei p`, the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

- The `instanceId` value for `Dimensions` is the instanceId of an EIP instance.

- The `IP` value for `Dimensions` is the IP address of an EIP instance.

Metric	Description	Unit	Dimension	Statistics
net_tx.rate	Outbound bandwidth	bit/s	InstanceId	Value
net_rx.rate	Inbound bandwidth	bit/s	InstanceId	Value
net_txPkgs.rate	The number of outgoing packets per second	count/s	InstanceId	Value

Metric	Description	Unit	Dimension	Statistics
net_rxPkgs. rate	The number of incoming packets per second	count/s	InstanceId	Value
out_rateli mit_drop_s peed	The speed-limit packet loss rate	packet/s	InstanceId	Average

ApsaraDB for Redis metrics

- The `Project` is named `acs_kvstor e`, the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

- The `instanceId` value for `Dimensions` is the instanceId of a Redis instance.

Metric	Description	Unit	Dimension	Statistics
MemoryUsage	The percentage of memory in use	%	InstanceId	Average, minimum, and maximum
Connection Usage	The percentage of used connections	%	InstanceId	Average, minimum, and maximum
IntranetInRatio	The percentage of bandwidth consumed during write operations	%	InstanceId	Average, minimum, and maximum
IntranetOu tRatio	The percentage of bandwidth consumed during read operations	%	InstanceId	Average, minimum, and maximum
IntranetIn	The write speed	bit/s	InstanceId	Average, minimum, and maximum
IntranetOut	The read speed	bit/s	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimension	Statistics
FailedCount	The number of failed operations on KVSTORE	count/s	InstanceId	Average, minimum, and maximum
CpuUsage	CPU usage	%	InstanceId	Average, minimum, and maximum
UsedMemory	Memory in use	Byte	InstanceId	Average, minimum, and maximum
UsedConnection	The number of used connections	count	InstanceId	Average, minimum, and maximum
UsedQPS	The number of used QPS	count/s	InstanceId	Average, minimum, and maximum

Message Service metrics

- The `Project` is named `acs_mns_ne w` , the statistical period is 300 seconds (or 5 minutes), and the value of the `Period` is 300 or an integer that is a multiple of 300.
- The `region` value for `Dimensions` is the region where the queue is located.
- The `queue` for `Dimensions` is the name of the queue.

Metric	Description	Unit	Dimensions	Statistics
ActiveMessages	The number of active messages	count	Region andqueue	Average, minimum, and maximum
InactiveMessages	The number of inactive messages	count	Region and queue	Average, minimum, and naximum
DelayMessages	The number of delayed messages	count	Region and queue	Average, minimum, and maximum

CDN metric reference

- The `Project` is named `acs_cdn`, the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.
- The `instanceId` value for `Dimensions` is the instanceId of a CDN instance.

Metric	Description	Unit	Dimension	Statistics
QPS	QPS (The total access requests in a specific time interval)	count	InstanceId	Average, minimum, and maximum
BPS	Peak bandwidth (The maximum network traffic per unit time)	bit/s	InstanceId	Average, minimum, and maximum
hitRate	Bytes hit rate (The probabilit y that request bytes hit the cache)	%	InstanceId	Average, minimum, and maximum
code4xx	The percentage of status codes of the format 4xx	%	InstanceId	Average, minimum, and maximum
code5xx	The percentage of status codes of the format 5xx	%	InstanceId	Average, minimum, and maximum
InternetOut	Downstream traffic	Byte	InstanceId	Average, minimum, and maximum

Analytic DB metrics

- The `Project` is named `acs_ads`, the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

Metric	Description	Unit	Dimensions	Statistics
ads.diskSize	Rated disk capacity	MB	InstanceId, tableSchema, and workerId	Average, minimum, and maximum
ads.diskUsed	Used disk capacity	MB	InstanceId, tableSchema, and workerId	Average, minimum, and maximum
ads.diskUsedPercent	Disk usage	%	InstanceId, tableSchema, and workerId	Average, minimum, and maximum

ApsaraDB for MongoDB metrics

· The `Project` is named `acs_mongod b`, the statistical period is 300 seconds (or 5 minutes), and the value of the `Period` is 300 or an integer that is a multiple of 300.

· The `role` for `Dimensions` is `Primary` or `Secondary`, which indicates a primary or secondary instance.

Metric	Metric name	Description	Unit	Dimensions	Statistics
CPUUtilization	CPU usage	The CPU usage of an instance	%	UserId, instanceId, and role	Average, minimum, and maximum
MemoryUtilization	Memory usage	The memory usage of an instance	%	UserId, instanceId, and role	Average, minimum, and maximum
DiskUtilization	Disk usage	The disk usage of an instance	%	UserId, instanceId, and role	Average, minimum, and maximum
IOPSUtilization	IOPS usage	The IOPS usage of an instance	%	UserId, instanceId, and role	Average, minimum, and maximum
ConnectionUtilization	Connection usage	The percentage of used connections	%	UserId, instanceId, and role	Average, minimum, and maximum

Metric	Metric name	Description	Unit	Dimensions	Statistics
QPS	Average SQL queries per second	The average number of SQL QPS on an instance	query	UserId, instanceId, and role	Average, minimum , and maximum
Connection Amount	Connections in use	The number of connection s that applicatio ns have establishe d with an instance	connection	UserId, instanceId, and role	Average, minimum , and maximum
InstanceDi skAmount	Disk space used by an instance	The disk space used by an instance	Byte	UserId, instanceId, and role	Average, minimum , and maximum
DataDiskAm ount	Disk space used by data	The disk space used by data	Byte	UserId, instanceId, and role	Average, minimum , and maximum
LogDiskAmo unt	Disk space used by logs	The disk space used by logs	Byte	UserId, instanceId, and role	Average, minimum , and maximum
IntranetIn	Inbound network traffic	The inbound network traffic of an instance	Byte	UserId, instanceId, and role	Average, minimum , and maximum
intranet_out	Outbound network traffic	The outbound network traffic of an instance	Byte	UserId, instanceId, and role	Average, minimum , and maximum
NumberRequ ests	Request count	The total number of requests sent to the server	request	UserId, instanceId, and role	Average, minimum , and maximum

Metric	Metric name	Description	Unit	Dimensions	Statistics
OpInsert	Insert operations	The total number of insert commands received since the last time MongoDB was started	times	UserId, instanceId, and role	Average, minimum, and maximum
OpQuery	Query operations	The total number of query commands received since the last time MongoDB was started	times	UserId, instanceId, and role	Average, minimum, and maximum
OpUpdate	Update operations	The total number of update commands received since the last time MongoDB was started	times	UserId, instanceId, and role	Average, minimum, and maximum
OpDelete	Delete operations	The total number of delete operations performed since the last time MongoDB was started	times	UserId, instanceId, and role	Average, minimum, and maximum

Metric	Metric name	Description	Unit	Dimensions	Statistics
OpGetmore	Getmore operations	The total number of getmore operations performed since the last time MongoDB was started	times	UserId, instanceId, and role	Average, minimum , and maximum
OpCommand	Command operations	The total number of commands sent to the database since the last time MongoDB was started	times	UserId, instanceId, and role	Average, minimum , and maximum

Express Connect metrics

· The `Project` is named `acs_expres s_connect` , the statistcal period is 60 seconds (or 1 minute), and the value of the `Period` 60 or an integer that is a multiple of 60.

· The `instanceId` value for `Dimensions` is the interface ID of the Express Connect router.

Metric	Metric name	Unit	Dimensions
IntranetRX	Inbound network traffic	Byte	InstanceId
IntranetTX	Outbound network traffic	Byte	ItanceId
ReceiveBandwidth	Inbound network bandwidth	bit/s	InstanceId
Transporte dBandwidth	Outbound network bandwidth	bit/s	InstanceId
RouterInte rfaceResponseTime	Latency	ms	InstanceId

Metric	Metric name	Unit	Dimensions
RouterInte rfaceLossRate	The percentage of the packet loss rate	%	InstanceId

Function Compute metrics

· The `Project` is named `acs_fc` , the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

· China East 2: region=cn-shanghai

Metric	Unit	Dimensions
FunctionAvgDuration	ms	Region, serviceName, and functionName
FunctionBillableInvo cations	count	Region, serviceName, and functionName
FunctionBillableInvo cationsRate	%	Region, serviceName, and functionName
FunctionClientErrors	count	Region, serviceName, and functionName
FunctionClientErrorsRate	%	Region, serviceName, and functionName
FunctionServerErrors	count	Region, serviceName, and functionName
FunctionServerErrorsRate	%	Region, serviceName, and functionName
FunctionThrottles	count	Region, serviceName, and functionName
FunctionThrottlesRate	%	Region, serviceName, and functionName
FunctionTotalInvocations	count	Region, serviceName, and functionName
RegionBillableInvocations	count	Region
RegionBillableInvoca tionsRate	%	Region
RegionClientErrors	count	Region
RegionClientErrorsRate	%	Region
RegionServerErrors	count	Region

Metric	Unit	Dimensions
RegionServerErrorsRate	%	Region
RegionThrottles	count	Region
RegionThrottlesRate	%	Region
RegionTotalInvocations	count	Region
ServiceBillableInvocations	count	Region and serviceName
ServiceBillableInvocationsRate	%	Region and serviceName
ServiceClientErrors	count	Region and serviceName
ServiceClientErrorsRate	%	Region and serviceName
ServiceServerErrors	count	Region and serviceName
ServiceServerErrorsRate	%	Region and serviceName
ServiceThrottles	count	Region and serviceName
ServiceThrottlesRate	%	Region and serviceName
ServiceTotalInvocations	count	Region and serviceName

NAT Gateway metrics

- The `Project` is named `acs_nat_ga teway`, the statistical period is 60 seconds (or 1 minute), and the value of the `Period` 60 or an integer that is a multiple of 60.

Metric	Metric name	Unit	Dimension	Remark
SnatConnection	SNAT connections	count/minute	InstanceId	The instanceId indicates the instance ID of the NAT Gateway.
net_rx.rate	Inbound bandwidth	bit/s	InstanceId	The instanceId indicates the bandwidth package ID.
net_tx.rate	Outbound network bandwidth	bit/s	InstanceId	The instanceId indicates the bandwidth package ID.

Metric	Metric name	Unit	Dimension	Remark
net_rx.Pkgs	Inbound network packets	packet/s	InstanceId	The instanceId indicates the bandwidth package ID.
net_tx.Pkgs	Outbound network packets	packet/s	InstanceId	The instanceId indicates the bandwidth package ID.
net_tx. ratePercent	Outbound network bandwidth usage	%	InstanceId	The instanceId indicates the bandwidth package ID.

Log Service metrics

- The `Project` is named `acs_sls_da  shboard` , the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

Metric	Metric name	Unit	Dimensions
LogInflow	Write traffic	Byte	Project and logstore
NetFlow	Raw data size	Byte	Project and logstore
SumQPS	Total QPS	count	Project and logstore
LogMethodQPS	Operation times	count	Project and logstore
LogCodeQPS	Service status	count	Project and logstore
SuccessdByte	Traffic successfully parsed by client	Byte	Project and logstore
SuccessdLines	Lines successfully parsed by client	line	Project, logstore
FailedLines	Lines fail to be parsed by client	line	Project and logstore
AlarmPV	Client errors	count	Project and logstore
AlarmUV	Client error instances	count	Project and logstore
AlarmIPCount	Error IP statistics	count	Project and logstore
InflowLine	Write lines	line	Project and logstore

Metric	Metric name	Unit	Dimensions
LogOutflow	Read traffic	Byte	Project and logstore
ConsumerGr oupFallBehind	Consumer falling behind duration	second	Project and logstore

Container Service metrics

· The `Project` **is named** `acs_contai  nerservice  _dashboard` , **the statistical period is 60 seconds (or 1 minute), and the value of the** `Period` **is 60 or an integer that is a multiple of 60.**

Metric	Metric name	Unit	Dimensions
CpuUtilization	CPU usage	%	ClusterId, serviceId , and instanceId
InternetInRate	Inbound network bandwidth	Byte/s	ClusterId, serviceId , and instanceId
InternetOutRate	Outbound network bandwidth	Byte/s	ClusterId, serviceId , and instanceId
MemoryAmount	Memory amount	Byte	ClusterId, serviceId , and instanceId
MemoryUtilization	Memory usage	%	ClusterId, serviceId , and instanceId
IOReadRate	The disk I/O read rate	Byte/s	ClusterId, serviceId , and instanceId
IOWriteRate	The disk I/O write rate	Byte/s	ClusterId, serviceId , and instanceId
GPUMemoryUsed	Used GPU memory	Byte	ClusterId, serviceId , and instanceId
GPUTemperature	GPU temperature	℃	ClusterId, serviceId , and instanceId
GPUUsed	GPU usage	%	ClusterId, serviceId , and instanceId

VPN Gateway metrics

· The `Project` **is named** `acs_vpn` , **the statistical period is 60 seconds (or 1 minute), and the value of the** `Period` **is 60 or an integer that is a multiple of 60.**

Metric	Description	Unit	Dimension
net_rx.rate	Inbound network bandwidth	bit/s	InstanceId
net_tx.rate	Outbound network bandwidth	bit/s	InstanceId
net_rx.Pkgs	The number of inbound network packets per second	packet/s	InstanceId
net_tx.Pkgs	The number of outbound network packets per second	packet/s	InstanceId

Shared bandwidth metrics

· The `Project` is named `acs_bandwi  dth_packag  e` , the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

Metric	Description	Unit	Dimension	Remarks
net_rx.rate	Inbound network bandwidth	bit/s	InstanceId	The instanceId indicates the ID of the shared bandwidth.
net_tx.rate	Outbound network bandwidth	bit/s	InstanceId	The instanceId indicates the ID of the shared bandwidth.
net_rx.Pkgs	Inbound network packets	packet/s	InstanceId	The instanceId indicates the ID of the shared bandwidth.
net_tx.Pkgs	Outbound network packets	packet/s	InstanceId	The instanceId indicates the ID of the shared bandwidth.
net_tx. ratePercent	Outbound network bandwidth usage	%	InstanceId	The instanceId indicates the ID of the shared bandwidth.

Cloud Enterprise Network metrics

- The `Project` is named `acs_cen` , the statiscal period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

Metric	Description	Unit	Dimensions
InternetOu tRatePerce ntByConnec tionArea	Outbound bandwidth percentage by area	%	CenId and geographicSpanId
InternetOu tRatePerce ntByConnec tionRegion	Outbound bandwidth percentage by region	%	CenId, geographic SpanId, localRegio nId, and oppositeRe gionId
InternetOu tRateByCon nectionArea	Outbound bandwidth by area	bit/s	CenId and geographicSpanId
InternetOu tRateByCon nectionRegion	Outbound bandwidth by region	bit/s	CenId, geographic SpanId, localRegio nId, and oppositeRe gionId
LatencyByC onnectionRegion	Region latency	ms	Src_region_id and dst_region_id
VBRHealthy CheckLatency	VBR latency	ms	CenId and vbrInstanceId
VBRHealthy CheckLossRate	VBR packet loss rate	%	CenId and vbrInstanceId
VBRInterne tOutRate	VBR outbound bandwidth	bit/s	CenId and vbrInstanceId
VBRInternetInRate	VBR inbound bandwidth	bit/s	CenId and vbrInstanceId

Edge Node Service metrics

- The `Project` is named `acs_ens` , the statistical period is 300 seconds (or 5 minutes), and the value of the `Period` is 300 or an integer that is a multiple of 300.

- `nodeId` indicates the city and the operator. For example, cn-kunming-telecom indicates Kunming Telecom, cn-wuhan-cmcc indicates Wuhan Mobile, and cn-wuhan-cucc indicates Wuhan Unicom.

- `instanceId` indicates the instance ID.

Metric	Description	Unit	Dimensions
instance_i nternetin_rate	The instance downlink network bandwidth	bit/s	NodeId and instanceId
instance_i nternetout_rate	The instance uplink network bandwidth	bit/s	NodeId and instanceId
node_inter netin_rate	The node downlink network bandwidth	bit/s	NodeId
node_inter netout_rate	The node uplink network bandwidth	bit/s	NodeId
user_inter netin_rate	The user downlink network bandwidth	bit/s	N/A
user_inter netout_rate	The user uplink network bandwidth	bit/s	N/A

Open Search metrics

- The `project` is named `acs_opense arch`. For details about the statistical period, see the following table.

- The `regionId` value for `Dimensions` can be queried through *DescribeRegions*.

Metric	Description	Unit	Dimensions	Minimum monitoring frequency
DocSizebyApp	The storage capacity	Byte	RegionId, appName, and appId	10 minutes
DocSizeRat iobyApp	The storage capacity usage	%	RegionId, appName, and appId	10 minutes

Metric	Description	Unit	Dimensions	Minimum monitoring frequency
DocCountby App	Documents	count	RegionId, appName, and appId	10 minutes
QPSbyApp	QPS	count/s	RegionId, appName, and appId	20 seconds
LossQPSbyApp	Minimum QPS	count/s	RegionId, appName, and appId	20 seconds
LatencybyApp	Time consumed for query	ms	RegionId, appName, and appId	20 seconds
ComputeRes ourcebyApp	Compute resource	LCU	RegionId, appName, and appId	20 seconds
ComputeRes ourceRatio byApp	Compute resource usage	%	RegionId, appName, and appId	20 seconds
ComputeCos tbyApp	The cost per single query compute	LCU	RegionId, appName, and appId	20 seconds

Secure Acceleration metrics

· The `Project` is named `acs_scdn` , the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.

· The `instanceId` value for `Dimensions` is the domain name of Secure Acceleration.

Metric	Description	Unit	Dimension	Statistics
BPS	The network bandwidth	bit/s	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimension	Statistics
code4xx	The percentage of status codes of the format 4xx	%	InstanceId	Average, minimum, and maximum
code5xx	The percentage of status codes of the format 5xx	%	InstanceId	Average, minimum, and maximum
hitRate	Hit rate	%	InstanceId	Average, minimum, and maximum
QPS	Visits per second	count	InstanceId	Average, minimum, and maximum

Global Acceleration metrics

- The `Project` is named `acs_scdn`, the statistical period is 60 seconds (or 1 minute), and the value of the `Period` is 60 or an integer that is a multiple of 60.
- The `instanceId` value for `Dimensions` is the domain name of Global Acceleration.

Metric	Description	Unit	Dimension	Statistics
BPS	Network bandwidth	bit/s	InstanceId	Average, minimum, and maximum
code4xx	The percentage of status codes of the format 4xx	%	InstanceId	Average, minimum, and maximum
code5xx	The percentage of status codes of the format 5xx	%	InstanceId	Average, minimum, and maximum
hitRate	Hit rate	%	InstanceId	Average, minimum, and maximum

Metric	Description	Unit	Dimension	Statistics
QPS	Visits per second	count	InstanceId	Average, minimum, and maximum

4 Host monitoring

4.1 NodeInstall

Description

This topic describes the associated parameters used in request and response queries for calling an API operation to install the CloudMonitor agent on a specified ECS instance. For more information, see *CloudMonitor Java agent introduction*.

> Note:
>
> · Before using this API operation, make sure that the *Server Guard (Server Security)* agent has been installed on your instance. The Server Guard agent is currently integrated into security images. It is installed by default on ECS instances. You can log on to the *Server Guard console* to view the running status of each server.
> · The success rate of installing the CloudMonitor agent by using the APIs is about 95%. If installation fails, log on to the instance to install the agent manually. For more information, see *Install CloudMonitor agent*.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The name of a required parameter. Value: `NodeInstall`.
UserId	String	Yes	Your Alibaba Cloud account ID.
InstanceId	String	Yes	The instance ID. For example: i-22jja5c2l.

Parameter	Type	Required?	Description
Force	Boolean	No	Indicates whether you need to install the CloudMonit or agent forcibly . If the agent has been installed, the default value indicates forced installation.

Response parameters

Parameter	Type	Description
Success	Boolean	Indicates whether the request is successful.
Code	Integer	The returned request status code. A status code of 200 indicates that the request is successful, and other status codes indicate that the request failed.
RequestId	String	The universal unique identifier (UUID) for the request, which is used for querying logs.
ErrorMessage	String	A message that indicates that the request failed.

Examples

Request example

```
http :// metrics . cn - hangzhou . aliyuncs . com /? Action =
 NodeInstal  l
& InstanceId =  i - abcdefgh12  3456
& Force = true
& UserId =  1234567898  765432
&< Common   Request   Parameters >
```

Response example

· XML format

```
< NodeInstal   lResponse >
  < ErrorCode > 200 </ ErrorCode >
```

```
   < Success > true </ Success >
</ NodeInstal   lResponse >
```

· JSON format

```
{
    " ErrorCode ":  200 ,
    " Success ":   true
}
```

4.2 NodeStatus

Description

This topic describes the associated parameters used in request and response queries for the API operation used to query the agent running status on a specified instance.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The API name specified by the system. Value: NodeStatus.
InstanceId	String	Yes	The instance ID. For example: i - 22jja5c2l .

Response parameters

Parameter	Type	Description
Code	Integer	The returned request status code. A status code of 200 indicates that the request is successful, and other status codes indicate that the request failed.
ErrorMessage	String	A message that indicates that the request failed.
Success	String	Indicates whether the operation is successful.

Parameter	Type	Description
RequestId	String	The universal unique identifier (UUID) for the request, which is used for querying logs.
InstanceId	String	The instance ID.
Status	String	The agent running status.
AutoInstall	Boolean	Indicates whether to enable automatic installation using NodeInstall.

Agent running status

Status	Description
running	Running
Stopped	Stopped
not_installed	Uninstalled
installing	Installing
Install_faild	Installation failed
need_to_upgrade	Upgrade required
uninstalled	Already uninstalled

Example

Request example

```
http :// metrics . cn – hangzhou . aliyuncs . com /? Action =
NodeStatus
& InstanceId =  i – abcdefgh12  3456
&< Common   Request   Parameters >
```

Response example

· XML format

·
```
< NodeStatus  Response >
   < Status > running </ Status >
   < InstanceId >  i – abcdefgh12  3456 </ InstanceId >
   < ErrorCode > 200 </ ErrorCode >
   < Success > true </ Success >
   < AutoInstal  l > true </ AutoInstal  l >
```

```
</ NodeStatus  Response >
```

- **JSON format**

-
```
{
    " Status ":" running ",
    " InstanceId ": " i - abcdefgh12  3456 ",
    " Success ":  true ,
    " ErrorCode ":  200 ,
    " AutoInstal  l ":  true
}
```

```
</ NodeStatus  Response >
```

5 API overview

This topic is an overview of all API operations used in CloudMonitor.

API operation	Description
ListAlarmHistory	Query alarm history.
NodeStatus	Query the running status of a agent on a specified instance.
CreateAlarm	Create an alarm rule.
DeleteAlarm	Delete an existing alarm rule.
ListAlarmHistory	Query specified or all alarm rule settings.
DisableAlarm	Disable an alarm rule.
ListContactGroup	Query the alarm contact group associated with an alarm rule under an Alibaba Cloud account.
EnableAlarm	Enable an alarm rule.
NodeInstall	Call interfaces to install a CloudMonitor agent on a specified ECS instance.
NodeStatusList	Query the status of a CloudMonitor agent for multiple instances.
QueryMetricLast	Query the latest monitoring data of a specified monitored object.
QueryMetricList	Query the monitoring data of a specified product instance within a specified period of time.
UpdateAlarm	Modify an existing alarm rule.

6 Alarm rules

6.1 DeleteAlarm

Description

This topic describes the associated parameters used in request and response queries for the API operation for deleting an alarm rule.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	System-defined parameters. Value: `DeleteAlarm`
Id	String	Yes	The ID of the alarm rule

Response parameters

Parameter	Type	Description
Data	String	The returned alarm rule ID
Success	Boolean	Indicates whether the request is successful.
RequestId	String	The universal unique identifier (UUID) for the request, which is used for querying logs.
Code	String	The returned request status code. A status code of 200 indicates that the request is successful, and other status codes indicate that the request failed.
Message	String	A message that indicates that the request failed.

Status codes

Status Code	Description	Meaning
400	Bad Request	Syntax error in client request.
403	Forbidden	No permission.
404	Not Found	Client error. resource not found.
500	Internal Server Error	Server error.
200	OK	Request successful.

Examples

Request example

Response example

· XML format

```
< DeleteAlar   mResponse >
  < RequestId > A9371CD8 – 369D – 49FA – BED9 – 35050A0DC6   A2 </
 RequestId >
  < Success > true </ Success >
  < Code > 200 </ Code >
</ DeleteAlar   mResponse >
```

· JSON format

```
{
    " RequestId ": "  A9371CD8 – 369D – 49FA – BED9 – 35050A0DC6   A2
 ",
    " Success ":  true ,
    " Code ": " 200 "
}
```

6.2 UpdateAlarm

Description

This topic describes the associated parameters used in request and response queries for the API operation of modifying an existing alarm rule.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The name of a parameter specified by the system. Value: `UpdateAlarm`
Id	String	Yes	The ID of the alarm rule
name	String	No	The name of the alarm rule
Period	Integer	No	An index query period, which must match the period defined for the metrics measured in the alarm rule. Default value: 300 seconds (or 5 minutes).
Statistics	String	No	A statistical method used to calculate monitoring data by metric, which may be one of the following: Average, Minimum, or Maximum. The statistical method must match the method that is defined for the metric measured.

Parameter	Type	Required?	Description
Comparison Operator	String	Yes	The alarm comparison operator used for defining a condition in the alarm rule, which must be one of the following: less than or equal to (<=), less than (<), greater than (>), greater than or equal to (>=), equal to (==), or not equal to (! =).
Threshold	String	Yes	The alarm threshold indicated in the alarm condition. This must be a numeric value.
EvaluationCount	Int	No	The number of consecutive times that the threshold needs to be exceeded for an alarm to be triggered. Default value: 3 times.
ContactGroups	String	Yes	The alarm contact group of the alarm rule, which must have been created on the console as a string corresponding to the JSON array. For example: [" Contact Group 1 " and "Contact Group 2"]

Parameter	Type	Required?	Description
StartTime	Int	No	The time when the alarm rule begins to take effect. Default value: 0 , which indicates that the alarm rule is set to take effect at 00:00
EndTime	Int	No	The time when the alarm rule expires. Default value: 24, which indicates the alarm rule is set to expire at 24:00
SilenceTime	Int	No	The period (in seconds) in which alarm notifications are muted. Default value: 86400 seconds (or 24 hours). Minimum value: 3600 seconds (or 1 hour).
NotifyType	Int	No	The type of notification method used by the alarm rule. The value 0 indicates notifications are sent by TradeManager and Email, and the value 1 indicates that notifications are sent by TradeManager, Email, and SMS.

Response parameters

Parameter	Type	Description
Success	Boolean	Indicates whether the request is successful
RequestId	String	The universal unique identifier (UUID) for the request, which is used for querying logs.
Code	String	The returned request status code. A status code of 200 indicates that the request is successful, and other status codes indicate that the request failed.
Message	String	A message that indicates that the request failed.

Examples

Request example

```
http :// metrics . cn - hangzhou . aliyuncs . com /? Action =
 UpdateAlar   m
& Comparison   Operator =% 3E
& Name = test_modif   y
& Id = 576fbae7 - 2fd1 - 411a - ae13 - 6f09f4fafd   de
& Threshold = 40
&< Common    Request    Parameters >
```

Response example

· XML format

```
< UpdateAlar   mResponse >
  < RequestId > C08FADC4 - CFDB - 42F7 - B9B8 - 0ED5391CD0   84 </
 RequestId >
  < Success > true </ Success >
  < Code > 200 </ Code >
</ UpdateAlar   mResponse >
```

· JSON format

```
{
    " RequestId ": " 945B9183 - 95C0 - 44FF - B30C - 9ED37D44F6   DC
 ",
    " Success ":  true ,
    " Code ": " 200 "
```

```
}
```

6.3 CreateAlarm

Description

This topic describes the associated parameters used in request and response queries for the API operation related to creating alarm rules.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The name of the parameter specified by the system. Value: `CreateAlarm`.
Name	String	Yes	The name of the alarm rule
Namespace	String	Yes	The name of the Alibaba Cloud product that is monitored by the alarm rule. For more information, see the corresponding projects for each product. For example: `acs_ecs_dashboard` and `acs_rds_dashboard`.
MetricName	String	Yes	The monitoring metric corresponding to the alarm rule. For more information, see the specific metrics used by each product.

Parameter	Type	Required?	Description
Dimension	String	Yes	A list of instances associated with the alarm rule. This list is a string corresponding to a JSON array . For example : [{ "instanceId " :" name1" },{ " instanceId" :" name2" }].
Period	Integer	No	An index query period, which must match the period defined for the metrics measured in the alarm rule. Default value: `300` seconds (or 5 minutes).
Statistics	String	Yes	A statistical method used to calculate monitoring data by metric, which may be one of the following: `Average` , Minimum, or Maximum. The statistical method must match the method that is defined for the metric measured.

Parameter	Type	Required?	Description
Comparison Operator	String	Yes	The alarm comparison operator used for defining a condition in the alarm rule, which must be one of the following: less than or equal to (<=), less than (<), greater than (>), greater than or equal to (>=), equal to (==), and not equal to (!=).
Threshold	String	Yes	The alarm threshold indicated in the alarm condition. This must be a numeric value.
EvaluationCount	Int	No	The number of consecutive times that the threshold needs to be exceeded for an alarm to be triggered. Default value: 3 times.
ContactGroups	String	Yes	The alarm contact group of the alarm rule, which must have been created on the console as string corresponding to the JSON array. For example: [Contact Group 1 , Contact Group 2].

Parameter	Type	Required?	Description
StartTime	Int	No	The time when the alarm rule begins to take effect. Default value: `0` , which indicates that the alarm rule is set to take effect at 00:00.
EndTime	Int	No	The time when the alarm rule expires. Default value: `24` , which indicates that the alarm rule is set to expire at 24:00.
SilenceTime	Int	No	The period (in seconds) in which alarm notifications are muted. Default value: `86400` seconds (or 24 hours). Minimum value: 3600 seconds (or 1 hour).
NotifyType	Int	No	The type of notification method used by the alarm rule. The value `0` indicates notifications are sent by TradeManager and Email, and the value 1 indicates notifications are sent by TradeManager, Email, and SMS.

Parameter	Type	Required?	Description
Webhook	String	No	A callback function that supports only Internet addresses. For more information, see *Create an alarm callback*.

Response parameters

Parameter	Type	Description
Data	String	The returned alarm rule ID
Success	Boolean	Indicates whether the request is successful.
RequestId	String	The universal unique identifier (UUID) for the request, which is used for querying logs.
Code	String	The returned request status code. A status code of 200 indicates that the request is successful, and other status codes indicate that the request failed.
Message	String	A message that indicates that the request failed.

Examples

Request example

```
http :// metrics . cn – hangzhou . aliyuncs . com /
Data    content   of   a    POST   request   body :
Name :  test_alarm
Namespace :  acs_ecs_da   shboard
MetricName :  vm . MemoryUtil  ization
Dimensions : [{" instanceId ":"< your_   instanceId  >"," userId ":"<
your_   userId  >"}]
Period :  900
Statistics :  Average
Comparison  Operator : <=
Threshold :  35
Evaluation  Count :  2
ContactGro  ups : [" testgroup "]
StartTime :  6
```

```
EndTime :  20
NotifyType :  1
```

Response examples

· **XML format**

```
< CreateAlar  mResponse >
  < Data > 576fbae7 - 2fd1 - 411a - ae13 - 6f09f4fafd  de </ Data >
  < RequestId > 58C699ED - 84BE - 44D5 - B55F - 84AFE73932  AB </
 RequestId >
  < Success > true </ Success >
  < Code > 200 </ Code >
</ CreateAlar  mResponse >
```

· **JSON format**

```
{
    " Data ": " 0c4af0f1 - a864 - 468b - bed3 - 15c7deff75  ee ",
    " RequestId ": " 910ABE4E - DC9D - 4231 - 9DC0 - C968355533  27
 ",
    " Success ":  true ,
    " Code ": " 200 "
}
```

6.4 ListAlarm

Description

This topic describes the associated parameters used in request and response queries
used for querying a specified set of or all alarm rule settings.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The name of a parameter specified by the system. **Value:** `ListAlarm`

Parameter	Type	Required?	Description
Namespace	String	Yes	The name of the Alibaba Cloud product that is monitored by the alarm rule. For more information, see the corresponding projects for each products. For example: acs_ecs_dashboard, acs_rds_dashboard, and acs_rds_da shboard.
Id	String	No	The ID for the alarm rule
Name	String	No	The name of the alarm rule (fuzzy search supported).
Dimension	String	No	A list of instances associated with the alarm rule. This list is a string corresponding to a JSON array . For example: {"instanceId":" name1"}. This field can be used to query all the rules associated with an instance. For these queries, however, a namespace must be specified.

Parameter	Type	Required?	Description
State	String	No	The status of an alarm, which may be one of the following: `ALARM`, `INSUFFICIENT_DATA`, or `OK`.
IsEnable	Boolean	No	This indicates whether the alarm rule is enabled. The value `true` indicates that the alarm rule is enabled, and `false` indicates that the rule is disabled.
PageNumber	Int	No	The page number. Default value: page `1`.
PageSize	Int	No	The number of records on each page. Default value: 100 records.

Response parameters

Parameter	Type	Description
NextToken	Integer	The next page. If the value is null, this indicates there is only one page.
AlarmList	List	The details list for the alarm rule.
Total	Integer	The total number of compliant data items.
Success	Boolean	Indicates whether the request is successful.

Parameter	Type	Description
RequestId	String	The universal unique identifier (UUID) for the request, which is used for querying logs.
Code	String	The returned request status code. A status code of 200 indicates that the request is successful, and other status codes indicate that the request failed.
Message	String	A message that indicates that the request failed.

Alarm parameters

Parameter	Type	Description
Id	String	The ID of the alarm rule
Name	String	The name of the alarm rule
Namespace	String	The name of the Alibaba Cloud product that is monitored by the alarm rule.
MetricName	String	The monitoring metric corresponding to the alarm rule.
Dimension	String	A list of instances associated with the alarm rule, which is a string corresponding to the JSON array. For example: [{"instanceId":"name1"} and {"instanceId":"name2"}]
Period	Int	An index query period (in seconds) that must match the period defined for the metrics measured in the alarm rule.

Parameter	Type	Description
Statistics	String	A statistical method used to calculate monitoring data by metric, which may be one of the following Average, Maximum, or Minimum. The statistical method must match the method that is defined for the metric measured.
ComparisonOperator	String	The alarm comparison operator used for defining a condition in the alarm rule, which must be one of the following: less than or equal to (<=), less than (<), greater than (>), greater than or equal to (>=), equal to (==), or not equal to (!=).
Threshold	String	The alarm threshold indicated in the alarm condition. This must be a numeric value.
EvaluationCount	Int	The number of consecutive times that the threshold needs to be exceeded for an alarm to be triggered. Default value: 3 times
ContactGroups	String	The alarm contact group of the alarm rule, which have been created on the console as a string corresponding to the JSON array. For example: [" Contact Group 1" and " Contact Group 2"]
StartTime	Int	The time when the alarm rule begins to take effect.
EndTime	Int	The time when the alarm rule expires.

Parameter	Type	Description
SilenceTime	Int	The period (in seconds) in which alarm notifications are muted.
NotifyType	Int	The type of notification method used by the alarm rule. The value 0 indicates that notifications are sent by TradeManager and Email, and the value 1 indicates that notifications are sent by TradeManager, Email, and SMS
Enable	Boolean	This indicates whether the alarm rule is enabled. The value true indicates that the alarm rule is enabled, and false indicates that the rule id disabled.
State	String	The status of an alarm, which may be one of the following: `ALARM`, which indicates that an alarm is triggered for one instance, `INSUFFICIE NT_DATA`, which indicates that no data exists, and `OK`, which indicates a condition other than the preceding two

Examples

Request example

```
http :// metrics . cn - hangzhou . aliyuncs . com /? Action =
 ListAlarm
& PageSize = 2
& Dimension =% 7B % 22instance  Id % 22 % 3A % 22   i - abcdefgh12
 3456 % 22 % 7D
& Namespace = acs_ecs_da  shboard
& PageNumber = 1
&< Common   Request   Parameters >
```

Response example

· **XML format**

```
< ListAlarmR  esponse >
  < NextToken > 2 </ NextToken >
  < RequestId > CC2CDD2B - 4EA5 - 43CD - BEE3 - 758E93C36B  7F </
 RequestId >
  < AlarmList >
    < Alarm >
      < period > 1 </ period >
      < Statistics > Average </ Statistics >
      < Name > ecs_cpu_to  tal </ Name >
      < MetricName > cpu_total </ MetricName >
      < State > OK </ State >
      < Threshold > 90 </ Threshold >
      < Enable > true </ Enable >
      < SilenceTim  e > 86400 </ SilenceTim  e >
      < NotifyType > 1 </ NotifyType >
      < Dimensions >["{\" instanceId \":\"  i - abcdefgh12  3456
 \"}"]</ Dimensions >
      < Namespace > acs_ecs_da  shboard </ Namespace >
      < ContactGro  ups >[" test4nudou "]</ ContactGro  ups >
      < Id > putNewAlar  m_group_e8  da18b9 - bc95 - 4edf - a8bf -
159eb6c828  6b </ Id >
      < EndTime > 24 </ EndTime >
      < StartTime > 2011 - 06 - 11Z </ StartTime >
      < Comparison  Operator >& gt ;=</ Comparison  Operator >
    </ Alarm >
    < Alarm >
      < Period > 300 </ Period >
      < Statistics > Average </ Statistics >
      < Name > ecs_diskus  age_utiliz  ation </ Name >
      < MetricName > diskusage_  utilizatio  n </ MetricName >
      < State > OK </ State >
      < Threshold > 90 </ Threshold >
      < Enable > true </ Enable >
      < SilenceTim  e > 86400 </ SilenceTim  e >
      < NotifyType > 1 </ NotifyType >
      < Dimensions >["{\" instanceId \":\"  i - abcdefgh12  3456
 \"}"]</ Dimensions >
      < Namespace > acs_ecs_da  shboard </ Namespace >
      < ContactGro  ups >[" test4nudou "]</ ContactGro  ups >
      < Id > putNewAlar  m_group_32  33eba5 - 0dd4 - 4e80 - a5d5 -
7399dec3d7  cc </ Id >
      < EndTime > 24 </ EndTime >
      < StartTime > 0 </ StartTime >
      < Comparison  Operator >& gt ;=</ Comparison  Operator >
    </ Alarm >
  </ AlarmList >
  < Success > true </ Success >
  < Code > 200 </ Code >
  < Total > 27 </ Total >
```

· **JSON format**

```
{
    " NextToken ":  2 ,
    " RequestId ": " EFD27F56 - 5799 - 4CE8 - B625 - 56DF333233  1C
 ",
    " AlarmList ": {
        " Alarm ": [
            {
                " Period ":  300 ,
```

```
                    " Statistics ": " Average ",
                    " Name ": " ecs_cpu_to  tal ",
                    " MetricName ": " cpu_total ",
                    " State ": " OK ",
                    " Threshold ": " 90 ",
                    " Enable ":  true ,
                    " SilenceTim  e ":  86400 ,
                    " NotifyType ":  1 ,
                    " Dimensions ": "[\"{\\\" instanceId \\\":\\\"  i -
abcdefgh12  3456 \\\"}\"]",
                    " Namespace ": " acs_ecs_da  shboard ",
                    " ContactGro  ups ": "[\" test4nudou \"]",
                    " Id ": " putNewAlar  m_group_e8  da18b9 - bc95 -
4edf - a8bf - 159eb6c828  6b ",
                    " EndTime ":  24 ,
                    " Starttime ":  0 ,
                    " Comparison  Operator ": ">="
                },
                {
                    " Period ":  300 ,
                    " Statistics ": " Average ",
                    " Name ": " ecs_diskus  age_utiliz  ation ",
                    " MetricName ": " diskusage_  utilizatio  n ",
                    " State ": " OK ",
                    " Threshold ": " 90 ",
                    " Enable ":  true ,
                    " SilenceTim  e ":  86400 ,
                    " NotifyType ":  1 ,
                    " Dimensions ": "[\"{\\\" instanceId \\\":\\\"  i -
abcdefgh12  3456 \\\"}\"]",
                    " Namespace ": " acs_ecs_da  shboard ",
                    " ContactGro  ups ": "[\" test4nudou \"]",
                    " Id ": " putNewAlar  m_group_32  33eba5 - 0dd4 -
4e80 - a5d5 - 7399dec3d7  cc ",
                    " Endtime ":  24 ,
                    " Starttime ":  0 ,
                    " Comparison  Operator ": ">="
                }
            ]
        },
        " Success ":  true ,
        " code ": " 200 ",
        " total ":  2
}
```

6.5 ListAlarmHistory

Description

This topic describes the associated parameters used in request and response queries used for the API operation for querying alarm history.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The name of a parameter specified by the system. Value: `ListAlarmHistory`
Id	String	No	The ID of the alarm rule.
Size	Int	No	The number of records on each page. Default value: `100` records.
StartTime	String	No	The time when the alarm rule begins to take effect. The default start time is 24 hours earlier than the current time. The time can be in the long time format or in the following format: yyyy-MM-dd HH:mm:ss.
EndTime	String	No	The time when the alarm rule expires. The default end time is the current time. The time can be in the long time format or in the following format: yyyy-MM-dd HH:mm:ss.
Cursor	String	No	The start position of data query. If it is null, the system queries the first 100 data items by time.

Response parameters

Parameter	Type	Description
AlarmHistoryList	List	The list of alarm history details.
Cursor	String	Data on the next page . If it is null, pages are unavailable.
Success	Boolean	Indicates whether the request is successful.
RequestId	String	The universal unique identifier (UUID) for the request, which is used for querying logs.
Code	String	The returned request status code. A status code of 200 indicates that the request is successful, and other status codes indicate that the request failed.
Message	String	A message that indicates that the request failed.

History parameters

Parameters	Type	Description
Id	String	The ID for the alarm rule.
Name	String	The name of the alarm rule .
Namespace	String	The name of the Alibaba Cloud product that is monitored by the alarm rule.
MetricName	String	The monitoring metric corresponding to the alarm rule.

Parameters	Type	Description
Dimension	String	A list of instances associated with the alarm rule, which is a string corresponding to the JSON array. For example: { " instance" :" name1" }.
EvaluationCount	Int	The number of consecutive times that the threshold needs to be exceeded for an alarm to be triggered.
Value	String	The threshold value that triggers an alarm.
AlarmTime	Long	The time when an alarm is triggered.
LastTime	Long	The duration of an alarm (in milliseconds).
State	String	The status of an alarm, which may be on the following: ALARM, INSUFFICIENT_DATA, or OK
Status	Integer	The status for sending a notification. The value 0 indicates that a notification has been sent to users, the value 1 indicates that no notification is sent because the time is not within the effective period, and the value 2 indicates that no notification is sent because the current time is within the alarm mute period.

Parameters	Type	Description
ContactGroups	String	The alarm contact group of the alarm rule, which is a string corresponding to the JSON array. For example: ["Contact Group 1" and "Contact Group 2"]. This field is valid only when status is set to 0.

Examples

Request example

```
http :// metrics . cn - hangzhou . aliyuncs . com /? Action =
 ListAlarmH  istory
& EndTime = 2017 - 03 - 16 + 15 % 3A00 % 3A00
& Size = 3
& StartTime = 2017 - 02 - 20 + 10 % 3A50 % 3A00
& Id = 1a775e37 - dfba - 430c - ab9f - 7036475c8b  fb_2dbe619  b -
 0483 - 402e - 9437 - 7c7a38fba7  ed
&< Common   Request   Parameters >
```

Response example

· **XML format**

```
< ListAlarmH  istoryResp  onse >
  < AlarmHisto  ryList >
    < AlarmHisto  ry >
      < Status > 2 </ Status >
      < Value >{" Maximum ": 301 ," Minimum ": 301 }</ Value >
      < MetricName > http . status_gro  upbyinstan  ceid # 60 </
 MetricName >
      < State > ALARM </ State >
      < LastTime > 122088 </ LastTime >
      < AlarmTime > 1489568222  088 </ AlarmTime >
      < Namespace > acs_sitemo  nitor </ Namespace >
      < ContactGro  ups > null </ ContactGro  ups >
      < Id > 1a775e37 - dfba - 430c - ab9f - 7036475c8b  fb_2dbe619
 b - 0483 - 402e - 9437 - 7c7a38fba7  ed </ Id >
      < Evaluation  Count > 3 </ Evaluation  Count >
    </ AlarmHisto  ry >
    < AlarmHisto  ry >
      < Status > 0 </ Status >
      < Value >{" Maximum ": 301 ," Minimum ": 301 }</ Value >
      < MetricName > http . status_gro  upbyinstan  ceid # 60 </
 MetricName >
      < State > ALARM </ State >
      < LastTime > 62078 </ LastTime >
      < AlarmTime > 1489568162  078 </ AlarmTime >
      < Namespace > acs_sitemo  nitor </ Namespace >
      < ContactGro  ups >[" alarm   contact "]</ ContactGro  ups >
      < Id > 1a775e37 - dfba - 430c - ab9f - 7036475c8b  fb_2dbe619
 b - 0483 - 402e - 9437 - 7c7a38fba7  ed </ Id >
      < Evaluation  Count > 3 </ Evaluation  Count >
```

```
       </ AlarmHisto   ry >
     </ AlarmHisto   ryList >
     < RequestId > 7E7A6173 – EC07 – 43A1 – ABBF – 1F05EBB4C2   BB </
   RequestId >
     < Success > true </ Success >
     < Code > 200 </ Code >
   </ ListAlarmH   istoryResp   onse >
```

· **JSON format**

```
{
    " AlarmHisto   ryList ": {
        " AlarmHisto   ry ": [
            {
                " Status ":   2 ,
                " Value ": "{\" Maximum \": 301 ,\" Minimum \": 301
  }",
                " MetricName ": " http . status_gro   upbyinstan
  ceid # 60 ",
                " State ": " ALARM ",
                " LastTime ":   122088 ,
                " AlarmTime ":   1489568222   088 ,
                " Namespace ": " acs_sitemo   nitor ",
                " ContactGro   ups ": " null ",
                " Id ": " 1a775e37 – dfba – 430c – ab9f –
  7036475c8b   fb_2dbe619   b – 0483 – 402e – 9437 – 7c7a38fba7   ed ",
                " Evaluation   Count ":   3
            },
            {
                " Status ": {
                " Value ": "{\" Maximum \": 301 ,\" Minimum \": 301
  }",
                " MetricName ": " http . status_gro   upbyinstan
  ceid # 60 ",
                " State ": " ALARM ",
                " LastTime ":   62078 ,
                " Armtime ":   1489568162   078 ,
                " Namespace ": " acs_sitemo   nitor ",
                " ContactGro   ups ": "[\" Alarm    contact \"]",
                " Id ": " 1a775e37 – dfba – 430c – ab9f –
  7036475c8b   fb_2dbe619   b – 0483 – 402e – 9437 – 7c7a38fba7   ed ",
                " Evaluation   Count ":   3
            }
        ]
    },
    " RequestId ": " 1DBBCE29 – 0F69 – 435C – B65C – 53D1011D1D   72
  ",
    " Success ":   true ,
    " Code ": " 200 "
}
```