CloudMonitor

Product Introduction

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CloudMonitor manages the Alibaba Cloud resources and Internet applications. The functions of CloudMonitor are to collect monitoring metrics for Alibaba Cloud resources, to detect Internet connectivity, and to set alarms for the monitoring metrics.

CloudMonitor can monitor ECS, ApsaraDB, Server Load Balancer and other types of Alibaba Cloud service resources. Moreover, it monitors Internet application availability via common network protocols such as HTTP and ICMP. It gives you the complete information about the usage and performance and the real-time status of the Alibaba Cloud resources.

When issues occur, the quick notification service enables you to take responsive actions. It also helps the applications to run smoothly without any disruptions.

After years of profound research in server monitoring, CloudMonitor now integrates powerful data analysis capabilities. CloudMonitor offers services like cloud service monitoring, site monitoring and custom monitoring (to safeguard your products & business).

Seamless integration

You can access the CloudMonitor service after you sign up for an Alibaba Cloud account. When you buy or use Alibaba cloud products, you can view their operation status and set alarms.

Data visualization

CloudMonitor offers a rich array of diagrams and presentation formats through Dashboard. It supports full-screen presentation and automatic data refresh. This activity satisfies the metric data visualization in various cases.

Metric data processing

CloudMonitor helps to process metric data through Dashboard. It is generally based on a combination of temporal and spatial dimensions.

Flexible alarms

CloudMonitor offers Alarm Rules service. By using this service, you can receive an alarm immediately when any exception occurs. You can set reasonable alarm rules and notification methods for metrics. This helps to identify and fix the service exceptions without any delay. Moreover, it increases the

availability of your products.

Scenarios

CloudMonitor provides an extensive array of scenarios. The following are the various scenarios, explained with the help of examples of different services.

Cloud service monitoring

Once you buy and use the Alibaba Cloud service supporting CloudMonitor, you can easily check the running status of your products and various metrics on the corresponding cloud service monitoring chart page. Moreover, you can set alarm policies for different metrics as well.

System monitoring

System monitoring enables you to keep check on the CPU and memory usage, outgoing public network traffic rate (bandwidth), and the other basic indicators of any ECS instance. Thus, you can use instances more appropriately and avoid service malfunction due to resource overuse.

Rapid exception handling

On the basis of the alarm rules you set, CloudMonitor sends notifications when metric data reaches the threshold. These alarms help you to receive timely exception notifications, diagnose the cause and take appropriate action in time.

Rapid resizing

You can set alarm rules for multiple metrics such as bandwidth, connection count and disk usage. This helps you to know the realtime status of cloud services and resize them (as per the requirement) when the alarm is triggered due to increase in the service volume.

Site monitoring

Currently, site monitoring service supports eight monitoring protocols namely HTTP, ICMP, TCP, UDP, DNS, POP3, SMTP, and FTP. This helps to detect the availability, response time and packet loss rate of your site. It also gives you the complete picture of the site availability and fix the exceptions immediately.

Custom monitoring

Custom monitoring is designed as a supplement to the Cloud Service Monitoring. If CloudMonitor

fails to provide you the expected metrics, you can create a new metric and report the acquired metric data to CloudMonitor. This is when the CloudMonitor displays monitoring charts and raise alarms for new metrics.

Overview

CloudMonitor provides you with an overview of cloud service resource usage, alarms, important events, and resource usage. It gives you real-time updates on resource occupancy, usage level, and alarms for each cloud service.

Cloud service overview

The Cloud service overview provides a summary of the resources engaged by the hosts (like ECS and non-ECS hosts on which mainly, CloudMonitor plugin has been installed), Server Load Balancer, EIP, ApsaraDB for RDS, OSS, CDN, ApsaraDB for MongoDB, ApsaraDB for Redis, Message Service, Container Service, Log Service, StreamComputer, Analytic DB, API Gateway, E-MapReduce, HybridDB for MySQL, ExpressConnect, and ApsaraDB for HybridDB. This helps you to know the asset conditions immediately.

You can view Cloud Service Monitoring list page for the corresponding product, once you click cloud service resource quantity tab.

Note

To collect ECS instance CPU, memory, and disk usage data, you must install the CloudMonitor plugin. Follow the Plugin installation guide to install CloudMonitor plugin.

Alarm overview

The alarm overview provides alarm statistics for past 7 days. It mainly includes real-time data for the following:

- Total number of alarm notifications
- Total number of triggered alarm rules
- Alarm rules with insufficient data
- Alarm SMS usage situation for the current month

You can click on the number of active alarm rules for more details. By clicking on the number of alarm rules with insufficient data, you will be able to view more information.

Event overview

Event overview summarizes all the defects and O&M events that occur during the span of 24 hours. Following are the important events that support various products.

Product name	Event name
Host	Plugin stopped
ApsaraDB for RDS	Master/Backup switchover
ApsaraDB for RDS	Instance fault
ApsaraDB for MongoDB	Instance fault
ApsaraDB for Redis	Master/Backup switchover
ApsaraDB for Redis	Instance fault

Resource levels

Resource levels display the overall resource usage conditions of each product in your account. The cumulative usage in the current month is monitored and measured for OSS, CDN, and Log Service. The metrics for other products are monitored and measured in real time by using the 95th percentile method.

Resource statistical methods

95th percentile

Percentile is a term used in statistics. To find a percentile, data values are arranged in ascending order, and the corresponding cumulative percentile is calculated. Thus, the data value corresponding to a certain percentile is called the ‘xyz’ percentile.The 95th percentile is the value of the 95th percentile. For example, the 95th percentile for the CPU usage for all ECS instances is 34%. For all the ECS instances, 95% of the instance CPU usage values are less than 34%. Hence, the 95th percentile statistics show the resource consumption level for majority of cloud services.

Resource indicator descriptions

Product name	Indicator name	Statistical method	Statistical period	Statistical range
Host	CPU usage	95th Percent	Real-time	All instances
Host	Memory usage	95th Percent	Real-time	All instances
Host	Disk usage	95th Percent	Real-time	All instances
Host	Outgoing Internet bandwidth	95th Percent	Real-time	All instances
ApsaraDB for RDS	CPU usage	95th Percent	Real-time	All instances

ApsaraDB for RDS	IOPS usage	95th Percent	Real-time	All instances
ApsaraDB for RDS	Connection usage	95th Percent	Real-time	All instances
ApsaraDB for RDS	Disk usage	95th Percent	Real-time	All instances
OSS	Total outgoing Internet traffic for current month	Sum	The cumulative value from 00:00 on the first day of the month to the current time	All buckets
OSS	Total PUT requests for current month	Sum	The cumulative value from 00:00 on the first day of the month to the current time	All buckets
OSS	Total GET requests for current month	Sum	The cumulative value from 00:00 on the first day of the month to the current time	All buckets
OSS	Storage size	Sum	The sum of the storage currently occupied by all OSS buckets	All buckets
CDN	Total traffic for current month	Sum	The cumulative value from 00:00 on the first day of the month to the current time	All domain names
CDN	Peak network bandwidth	95th Percent	Real-time	All instances
CDN	Access QPS	95th Percent	Real-time	All instances
ApsaraDB for MongoDB	CPU usage	95th Percent	Real-time	All instances
ApsaraDB for MongoDB	Memory usage	95th Percent	Real-time	All instances
ApsaraDB for MongoDB	IOPS usage	95th Percent	Real-time	All instances
ApsaraDB for MongoDB	Connection usage	95th Percent	Real-time	All instances
ApsaraDB for MongoDB	Disk usage	95th Percent	Real-time	All instances

ApsaraDB for Redis	Memory usage	95th Percent	Real-time	All instances
ApsaraDB for Redis	IOPS usage	95th Percent	Real-time	All instances
ApsaraDB for Redis	Connection usage	95th Percent	Real-time	All instances
EIP	Incoming Internet bandwidth	95th Percent	Real-time	All instances
EIP	Outgoing Internet bandwidth	95th Percent	Real-time	All instances
Container Service	CPU usage	95th Percent	Real-time	All instances
Container Service	Memory usage	95th Percent	Real-time	All instances
Container Service	Outgoing Internet traffic	95th Percent	Real-time	All instances
Log Service	Total incoming network traffic for current month	Sum	The cumulative value from 00:00 on the first day of the month to the current time	All projects
Log Service	Total outgoing network traffic for current month	Sum	The cumulative value from 00:00 on the first day of the month to the current time	All projects
Log Service	Total requests for current month	Sum	The cumulative value from 00:00 on the first day of the month to the current time	All projects
ApsaraDB for HybridDB	CPU usage	95th Percent	Real-time	All instances
ApsaraDB for HybridDB	Memory usage	95th Percent	Real-time	All instances
ApsaraDB for HybridDB	IOPS usage	95th Percent	Real-time	All instances
ApsaraDB for HybridDB	Connection usage	95th Percent	Real-time	All instances
ApsaraDB for HybridDB	Disk usage	95th Percent	Real-time	All instances