

ALIBABA CLOUD

Alibaba Cloud

CloudMonitor Product Introduction

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Document conventions

| Style | Description | Example |
|--|---|---|
|  Danger | A danger notice 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. |
|  Warning | A warning notice 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 restart an instance. |
|  Notice | A caution notice indicates warning information, supplementary instructions, and other content that the user must understand. |  Notice: If the weight is set to 0, the server no longer receives new requests. |
|  Note | A note indicates supplemental instructions, best practices, tips, and other content. |  Note: You can use Ctrl + A to select all files. |
| > | Closing angle brackets are used to indicate a multi-level menu cascade. | Click Settings> Network> Set network type . |
| Bold | Bold formatting is used for buttons, menus, page names, and other UI elements. | Click OK . |
| Courier font | Courier font is used for commands | Run the <code>cd /d C:/window</code> command to enter the Windows system folder. |
| <i>Italic</i> | Italic formatting is used for parameters and variables. | <code>bae log list --instanceid</code> <i>Instance_ID</i> |
| [] or [a b] | This format is used for an optional value, where only one item can be selected. | <code>ipconfig [-all -t]</code> |
| { } or {a b} | This format is used for a required value, where only one item can be selected. | <code>switch {active stand}</code> |

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1. What is CloudMonitor?

CloudMonitor is a service that monitors Internet applications and Alibaba Cloud resources.

CloudMonitor provides one-stop, ready-to-use, and enterprise-class monitoring solutions for you. CloudMonitor supports basic monitoring for IT infrastructure and dial testing for public network quality by monitoring events, custom metrics, and logs. The monitoring services provided by CloudMonitor are efficient, comprehensive, and cost-effective. CloudMonitor helps you improve system service availability and reduce the operations and maintenance (O&M) costs of IT infrastructure.

CloudMonitor provides application groups and alert templates for you to efficiently monitor tens of thousands of instances from dozens of services. You can add resources from different services and regions to the same application group to facilitate management.

CloudMonitor collects system metrics and custom metrics of Alibaba Cloud resources to monitor service availability and allows you to set alert rules for specific metrics. In this way, you can grasp the usage of your Alibaba Cloud resources, monitor the status and health of your applications, and act promptly on alerts to ensure the availability of your applications.

Architecture



Features

The following table lists the features supported by CloudMonitor.

| Feature | Description |
|-------------------|---|
| Dashboard | Allows you to view monitoring data as needed. You can aggregate monitoring data of different services and instances that run the same type of workloads by using a dashboard. |
| Application group | Allows you to manage resources from different services and regions by group. You can use application groups to manage resources involved in your business, such as servers, databases, load balancers, and storage, in a centralized manner. For example, you can manage alert rules and view monitoring data by application group. This greatly improves the O&M efficiency. |
| Host monitoring | Allows you to install the CloudMonitor agent on servers to collect monitoring data of 30 metrics, including the metrics related to CPU, memory, disk, and network usage. Host monitoring allows you to set alert rules for all metrics on specified instances, application groups, or all resources. Host monitoring can meet the basic monitoring and O&M requirements for your servers. Host monitoring is supported on both Linux and Windows. |
| Event monitoring | Allows you to report events, query events, and receive alerts about events. Event monitoring allows you to report exceptions or important changes in your business to CloudMonitor and receive alerts when exceptions occur. |
| Custom monitoring | Allows you to report business metrics about which you are concerned to CloudMonitor. CloudMonitor processes the collected monitoring data and generates alerts based on the processing result. |

| Feature | Description |
|---------------------------------|---|
| Site monitoring | Sends detection requests that simulate real user access from detection points all over China to your site to test and monitor access to your site from networks of different carriers. |
| Cloud service monitoring | Allows you to view the metrics of your cloud service instances. Cloud service monitoring helps you analyze the resource usage, collect statistics about the business trend, and identify and diagnose system faults in a timely manner. |
| Alert service | Allows you to set alert rules and sends alert notifications to you when alerts are triggered. You can set alert rules to specify how the alert system checks the monitoring data and when it sends alert notifications. After you set alert rules for important metrics, you can receive alert notifications immediately after exceptions occur and handle the exceptions in a timely manner. |
| Resource consumption | Allows you to view resource consumption details. |

2. Benefits

Cloud Monitor, integrated with the strong data analysis capabilities of the Alibaba Cloud computing platform, is an achievement of Alibaba Group after many years of research on server monitoring technologies. Cloud Monitor provides cloud service monitoring, site monitoring, and custom monitoring to safeguard your products and business.

Cloud Monitor provides the following benefits:

Seamless integration

You can use Cloud Monitor immediately after you create an Alibaba Cloud account, without the need to activate Cloud Monitor. Cloud Monitor is seamlessly integrated with other Alibaba Cloud services. You can view the running status of your Alibaba Cloud services and configure alert rules for the services in the Cloud Monitor console after you activate and use the services.

Data visualization

Cloud Monitor uses dashboards to provide a rich array of monitoring charts. Cloud Monitor allows you to view dashboards in full screen and can automatically refresh monitoring data. This meets the need of monitoring data visualization in various scenarios.

Monitoring data processing

Cloud Monitor allows you to use dashboards to aggregate monitoring data by time or space.

Flexible alerting

Cloud Monitor provides the alert service. You can configure alert rules and alert notification methods for metrics. Cloud Monitor sends an alert notification immediately after a service exception occurs. This helps you detect and fix service exceptions and improves service availability.

3.Scenarios

Cloud Monitor applies to a wide range of scenarios.

Cloud service monitoring

After you activate and use Alibaba Cloud services supported by Cloud Monitor, you can view the running status and metrics of the services in the Cloud Monitor console. You can also configure alert rules for the metrics.

Host monitoring

Cloud Monitor monitors the basic metrics such as CPU utilization, memory usage, and outbound bandwidth of your Elastic Compute Service (ECS) instances. This ensures that the instances run properly and prevents service interruption due to resource overuse.

Timely troubleshooting

Based on the alert rules that you configure, Cloud Monitor sends an alert notification immediately if any metric exceeds the specified threshold. This allows you to start troubleshooting immediately when exceptions occur.

Resource scale-out

After you configure alert rules for metrics such as the bandwidth, connection count, and disk usage, you can receive alert notifications about the usage of your cloud resources. If the existing resources cannot meet your business requirements, you can scale out the resources as required.

Site monitoring

Cloud Monitor can monitor sites by using HTTP (HTTPS), ICMP, TCP, UDP, DNS, SMTP, POP3, and FTP. Cloud Monitor monitors the availability, response time, and packet loss rate of your site. This allows you to get a comprehensive view of the site availability and fix exceptions if any.

Custom monitoring

Custom monitoring is designed as a supplement to cloud service monitoring. If Cloud Monitor does not provide metrics that you expect, you can create a metric, collect monitoring data, and then report the data to Cloud Monitor. Then, Cloud Monitor displays monitoring charts and sends alert notifications based on the new metric.

4.Terms

This topic describes the terms of CloudMonitor.

| Term | Description |
|--------------------------|--|
| site monitoring | The feature used to monitor the availability of domain names and IP addresses. You can use detection points to send requests over the HTTP, ICMP, TCP, UDP, DNS, POP3, SMTP, or FTP protocol to the monitored domain names or IP addresses and receive the status codes and response time. |
| cloud service monitoring | The feature that monitors multiple metrics of different cloud services, including ApsaraDB for RDS, Server Load Balancer (SLB), and Object Storage Service (OSS). |
| custom monitoring | The feature that allows you to customize the metrics to monitor and use scripts to report monitoring data. This feature meets your requirements for business monitoring. |
| alert service | The feature that allows you to set alert rules for site monitoring, cloud service monitoring, and custom monitoring. Alert notifications are sent when the monitoring data triggers alert rules. |
| metric | The type of the monitoring data. CloudMonitor provides system metrics and allows you to customize metrics. For example, CloudMonitor provides two metrics for monitoring sites over the HTTP protocol, which are response time and status code. The metrics for monitoring Elastic Compute Service (ECS) instances include CPU usage and memory usage. |
| dimension | The identifier that is used to locate a monitoring data entry of a metric. For example, you can use the instance ID and disk name dimensions to uniquely identify a monitoring data entry of the disk I/O metric. In custom monitoring, a dimension is a field. |
| alert rule | The condition for triggering an alert. For example, you can set an alert rule to trigger an alert when the memory usage reaches or exceeds 50% for three consecutive times in 5 minutes. |

| Term | Description |
|---------------------|--|
| mute period | The interval during which alert notifications are not repeatedly sent for a metric, which is 24 hours by default. If a metric continually exceeds the threshold within 24 hours after an alert notification was sent for the metric, no more alert notifications will be sent for this metric in the 24-hour period. |
| alert contact | The recipient of alert notifications. |
| alert group | The group of one or more alert contacts. In alert rule configurations, alert notification recipients are alert groups, not alert contacts. The alert system sends alert notifications to alert contacts in the alert group by using the specified notification method when an alert is triggered. |
| notification method | The method used to send alert notifications. You can use multiple notification methods, including text messages, TradeManager, emails, and Message Service (MNS) queues. |