This page explains how to create and manage logs-based metrics in Stackdriver Monitoring charts and alerting policies using the Google Cloud Console.

To create an alerting policy using the Stackdriver Monitoring API, see <u>Managing alerting policies by API</u> (/monitoring/alerts/using-alerting-api). To use the gcloud commands, go to gcloud alpha monitoring <u>policies</u> (/sdk/gcloud/reference/alpha/monitoring/policies/).

For a general discussion of logs-based metrics, including troubleshooting information, go to Overview of logs-based metrics (/logging/docs/logs-based-metrics/).

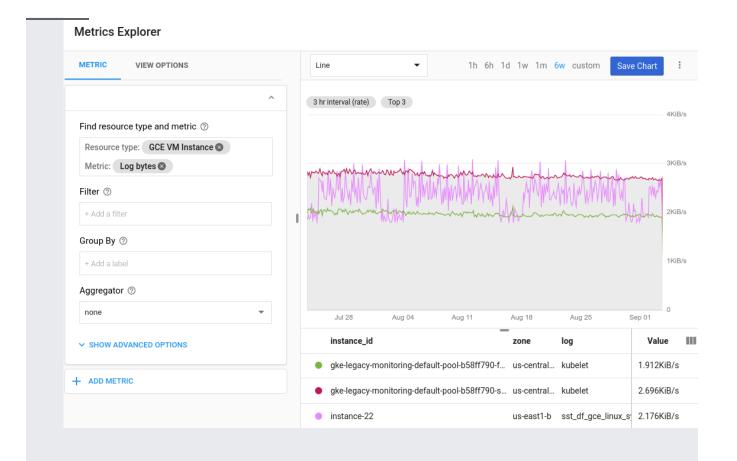
The fastest way to look at a graph of your logs-based metrics is to use Metrics Explorer:

1. Go to **Logs-based metrics** in the Google Cloud Console:

<u>Go to Logs-based Metrics</u> (https://console.cloud.google.com/logs/metrics)

2. Find the metric you want to view, and then select **View in Metrics Explorer** from the metric's **More** • menu.

The following screenshot illustrates the data displayed by **Metrics Explorer**. In this case, the log bytes for a Compute Engine VM instance are displayed:



If you wish to further refine the charted data, the **Metric** tab of the Metrics Explorer lets you build your query and dynamically displays your results. You can specify the following fields:

• **Find resource type and metric**: The metric and the resource type are set for you. Adjust these values if you wish.

If there is no data available for the metric, then the resource type cannot be set. For details, go to <u>Troubleshooting</u> (/logging/docs/logs-based-metrics/#troubleshooting).

- Filter (optional): Select metric labels to filter on.
- **Group by** (optional): Select metric labels by which to divide the time series.
- Aggregator (optional): Select an aggregation function to be used to combine multiple time series.
- Advanced options (optional): You can further specify your aggregation or customize your chart's legend.
- Add metric: Once you have built your first query, you can build additional queries to display more metrics in the charting area.

Tip: If you don't see any data in the graph, try setting one of the aggregation options.

Stackdriver Monitoring in the Cloud Console is now Generally Available and the default experience. For a limited peric ou also have the option to use the classic Stackdriver Monitoring console. For more information, see Stackdriver <a

Create a chart in a Monitoring dashboard showing a logs-based metric. You can use either a counter metric or a distribution metric. Do the following:

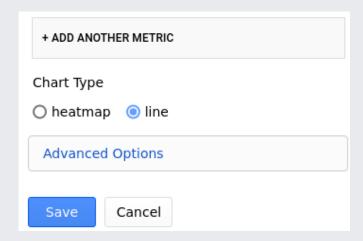
1. Go to Stackdriver Monitoring:

<u>Go to Monitoring</u> (https://console.cloud.google.com/monitoring)

2. Select **Dashboards > Create Dashboard** in the left-side navigation list. You see a blank dashboard with a button to add a chart.

Alternatively, select **Dashboards** > **[DASHBOARD_NAME]** to add a chart to an existing dashboard.

- 3. Click Add Chart on the Charts page. Fill out the form:
 - Chart title: Type in a name for the chart.
 - Resource type: Select Metric type.
 - Metric: Select the logs-based metric that you wish to display.
 - **Chart type**: For distribution metrics, there is an option to generate a heatmap:



• Click Save.

The **Charts** page contains other options for refining the charted data. For example, you can filter data by metric and resource labels.

Tip: If you don't see data in the charting area, try broadening the chart's time period to **1w** (one week) or **1m** (one month).

In addition to the features shared by all charts, charts that are based on distribution logs-based metrics have the following features:

- They can be visualized as heatmaps where the intensity of the color in a given bucket range in the y-axis corresponds to the number of data samples in that bucket.
- They can be displayed as percentile lines by choosing an alignment option for the 5th, 50th, 95th, or 99th percentile values.

If there is data available in a Monitoring chart, then there is a **View Logs** option in its **More** menu. Selecting this option takes you to the <u>Logs Viewer</u> (/logging/docs/view/overview) for the time period seen in the chart.

View Logs isn't only for logs-based metrics, but rather lets you look at log entries that are relevant to whatever metrics are being displayed in the chart.

An alerting policy describes a set of conditions that you want to monitor. When you create an alerting policy, you must also specify its conditions: what is monitored and when to trigger an alert.

To create an alerting policy on a logs-based counter metric, do the following:

1. Go to **Logs-based metrics** in the Google Cloud Console:

<u>Go to Logs-based Metrics</u> (https://console.cloud.google.com/logs/metrics)

2. Find the metric you want to explore and select **Create alert from metric** in the metric's **More** menu.

The **Conditions** pane opens, with the logs-based metric you chose pre-populated in the **Target** dialog.

- 3. In the **Configuration** dialog, fill in the **Threshold** value.
- 4. Click **Save**, which displays the **Create new alerting policy** panel with your completed condition.
- 5. Optional: Fill in the **Notifications** and **Documentation** sections.
- 6. In the **Name this policy** section, enter a name for the alerting policy.
- 7. Click **Save**.

For more information on alerting policies, read <u>Introduction to alerting</u> (/monitoring/alerts/).

For a policy that monitors Stackdriver usage and alerts you when you approach the threshold for billing, go to <u>Alerting on Stackdriver usage</u> (/stackdriver/pricing#alert-usage).

If you encounter issues, go to <u>Troubleshooting</u> (/logging/docs/logs-based-metrics/#troubleshooting).

For deeper information on charting and alerting, read these Monitoring resources:

- Creating charts (/monitoring/charts/)
 - <u>Selecting metrics</u> (/monitoring/charts/)
 - Setting view options (/monitoring/charts/chart-view-options)
- Managing alerting policies (/monitoring/alerts/using-alerting-ui)