<u>Serverless Computing</u> (https://cloud.google.com/products/serverless/) <u>Cloud Run: Serverless Computing</u> (https://cloud.google.com/run/) <u>Documentation</u> (https://cloud.google.com/run/docs/) <u>Guides</u>

Monitoring Health and Performance

Beta

This feature is in a pre-release state and might change or have limited support. For more information, see the <u>product launch stages</u> (https://cloud.google.com/products/#product-launch-stages).

The above beta advisory applies to using this feature with Cloud Run for Anthos on Google Cloud.

Note: Stackdriver Monitoring in the Cloud Console is now Generally Available and the default experience. For a limited period of time, you also have the option to use the classic Stackdriver Monitoring console. For more information, see <u>Stackdriver Monitoring in the Cloud Console</u> (https://cloud.google.com/monitoring/docs/monitoring_in_console).

<u>Stackdriver Monitoring</u> (https://cloud.google.com/monitoring/docs/) provides Cloud Run performance monitoring, <u>metrics</u> (https://cloud.google.com/monitoring/custom-metrics/), and <u>uptime checks</u> (https://cloud.google.com/monitoring/uptime-checks/), along with <u>alerts</u> (https://cloud.google.com/monitoring/alerts/) to send notifications when certain metric thresholds are exceeded. <u>Stackdriver pricing</u> (https://cloud.google.com/stackdriver/pricing) applies, which means there is no charge for metrics on the fully managed version of Cloud Run. Note that you can also use <u>Stackdriver Monitoring custom metrics</u> (https://cloud.google.com/monitoring/custom-metrics/).

Cloud Run is automatically integrated with Stackdriver Monitoring **with no setup or configuration required**. This means that metrics of your Cloud Run services are captured automatically when they are running.

You can view metrics either in Stackdriver Monitoring or in the Cloud Run page in the console. Stackdriver Monitoring provides more charting and filtering options.

Resource types

The resource type differs for Cloud Run (fully managed) and Cloud Run for Anthos on Google Cloud:

- For Cloud Run (fully managed) the monitoring resource name is "Cloud Run Revision" (cloud_run_revision).
- For Cloud Run for Anthos on Google Cloud the monitoring resource name is "Cloud Run on GKE Revision" (knative_revision).

Viewing metrics in Cloud Run

To view metrics in Cloud Run:

- 1. GO TO CLOUD RUN (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/RUN)
- 2. Locate the service in the services list, and click on it.
- 3. Click the *Metrics* tab to show the metrics for that revision.

Viewing metrics in Stackdriver Monitoring

To view the metrics for a monitored resource using Metrics Explorer, do the following:

- 1. In the Google Cloud Console, go to **Monitoring** or use the following button: <u>GO TO MONITORING</u> (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/MONITORING)
- 2. If **Metrics Explorer** is shown in the navigation pane, click **Metrics Explorer**. Otherwise, select **Resources** and then select **Metrics Explorer**.
- 3. Ensure **Metric** is the selected tab.
- 4. Click in the box labeled **Find resource type and metric**, and then select from the menu or enter the name for the resource and metric. Use the following information to complete the fields for this text box:
 - a. For the **Resource**, select the resource type that corresponds to your platform you are using, as <u>documented above</u> (#resource-types).
 - b. For the **Metric**, select one of the metrics in menu. For a full description of the available metrics, see:

- For Cloud Run (fully managed), see <u>Monitoring Google Cloud metrics page</u> (https://cloud.google.com/monitoring/api/metrics_gcp#gcp-run).
- For Cloud Run for Anthos on Google Cloud, see <u>Monitoring External metrics</u> <u>page</u> (https://cloud.google.com/monitoring/api/metrics_other#other-knative).
- 5. Use the **Filter**, **Group By**, and **Aggregation** menus to modify how the data is displayed. For example, you can group by resource or metric labels. For more information, see <u>Selecting</u> <u>metrics additional configuration</u>

(https://cloud.google.com/monitoring/charts/metrics-selector#additional_configuration).

Note: For Cloud Run for Anthos on Google Cloud, some of the metrics listed show a sample interval of only once every 60 seconds. This means that if the underlying value of the metric changes more than once in 60 seconds, only one of the underlying values will be reported to Monitoring.

Adding Uptime checks

You can use Stackdriver Monitoring to keep track of your services' performance. For more information, see <u>Verify availability of your service</u> (https://cloud.google.com/monitoring/uptime-checks/)(uptime checks).

Adding Alerts

You can use Stackdriver Monitoring to send notification about certain events, such as uptime check failures. For more information, see <u>Create and manage alerting policies</u> (https://cloud.google.com/monitoring/alerts/) for your service.

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Last updated December 18, 2019.