Monitoring Cloudera Data Engineering

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Contents

Monitoring Cloudera Data Engineering service resources with Grafana dashboards

Grafana is a visualisation and analytics software that enables the development of dashboards to monitor metrics data. You can access pre-built Grafana dashboards to monitor your jobs and virtual clusters in Cloudera Data Engineering.

The Cloudera metrics are stored centrally in the Prometheus database and monitored by Prometheus. Grafana uses these metrics for data visualization. Your workload databases are not involved in any way.

You can immediately view the following pre-built dashboards for viewing runtime metrics in Cloudera Data Engineering:

Kubernetes Dashboard

This dashboard includes generalized visualizations of Cloudera Data Engineering job run statuses. It displays the following information:

- Number of succeeded, failed, and killed jobs for the given period
- Total number of jobs in the Starting phase
- Total number of jobs in the Running phase

Virtual Cluster Metrics Dashboard

This dashboard includes visualizations of service requests, pod counts and job statuses for the selected Virtual Cluster. The available metrics are:

- Time series of CPU requests of running pods (includes virtual cluster service overhead)
- Time series of memory requests of running pods (includes virtual cluster service overhead)
- The response time of Livy's requests
- Time series for the number of pods in running and pending states
- Total number of running pods and pending pods
- Time series of starting and running jobs, and the total number of successful jobs

Connecting to Grafana dashboards in Cloudera Data Engineering on premises

This topic describes how to access Grafana dashboards for advanced visualization of Virtual Cluster's metrics such as memory and CPU usage in Cloudera Data Engineering on premises.

For CDE Service

1. In the Cloudera console, click the Data Engineering tile. The Home page displays.

2. Click Administration in the left navigation menu and locate a Service in the Services column
   and click Service Details on the environment for which you want to see the Grafana dashboard.
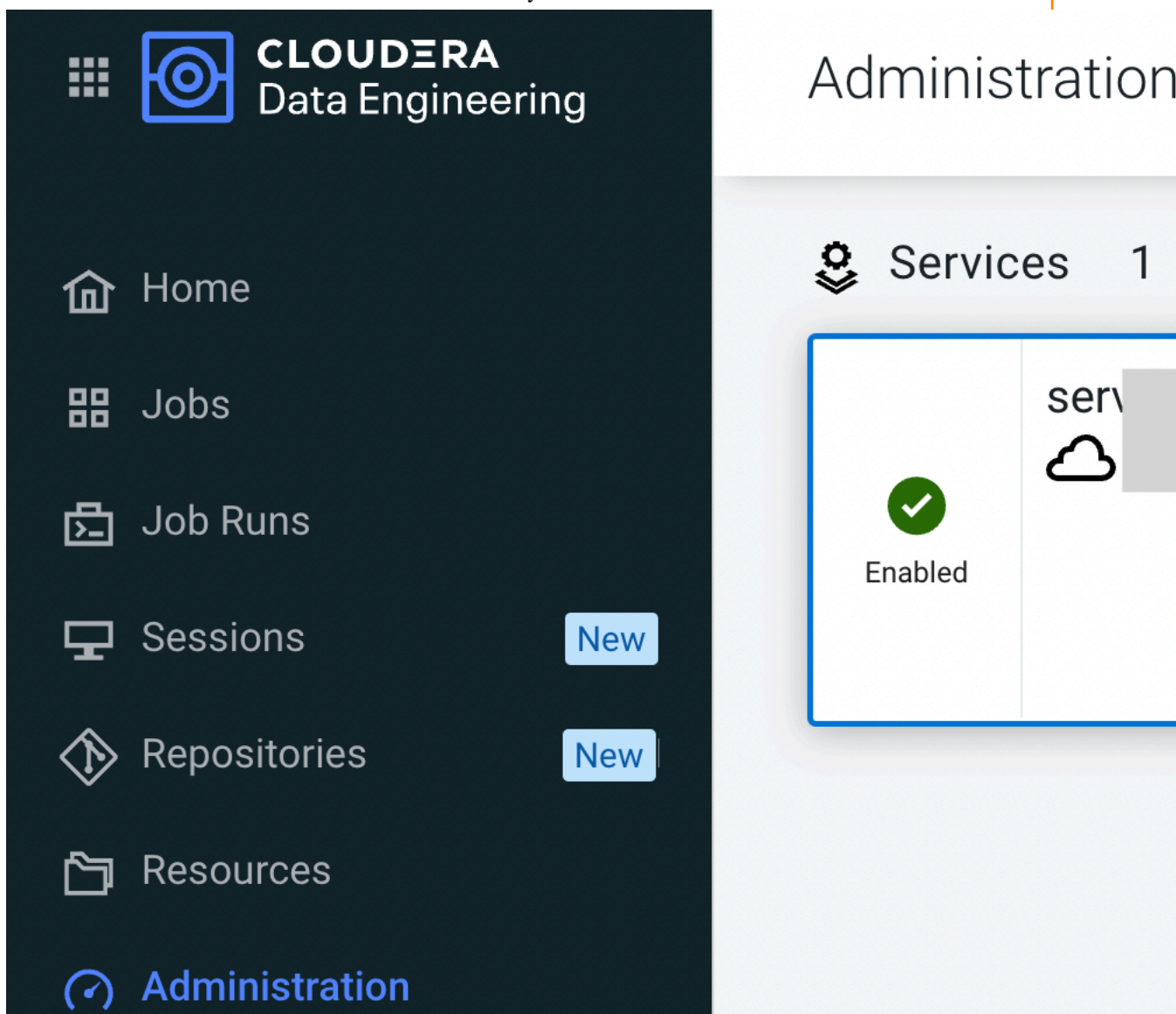
3. In the Administration/Service page, click Grafana Charts. A read-only version of the Grafana interface opens
   in a new tab in your browser.

4.

   In the Grafana dashboard, click the grid icon in the left navigation menu.

5. Select Virtual Cluster Metrics under the Dashboards pane.

6. Click on a virtual cluster name from the dropdown list to view the Grafana charts.

about CPU requests, memory requests, jobs, and other information related to the virtual cluster is displayed.

For Virtual Cluster

1. In the Cloudera console, click the Data Engineering tile. The Cloudera Data Engineering Home page displays.
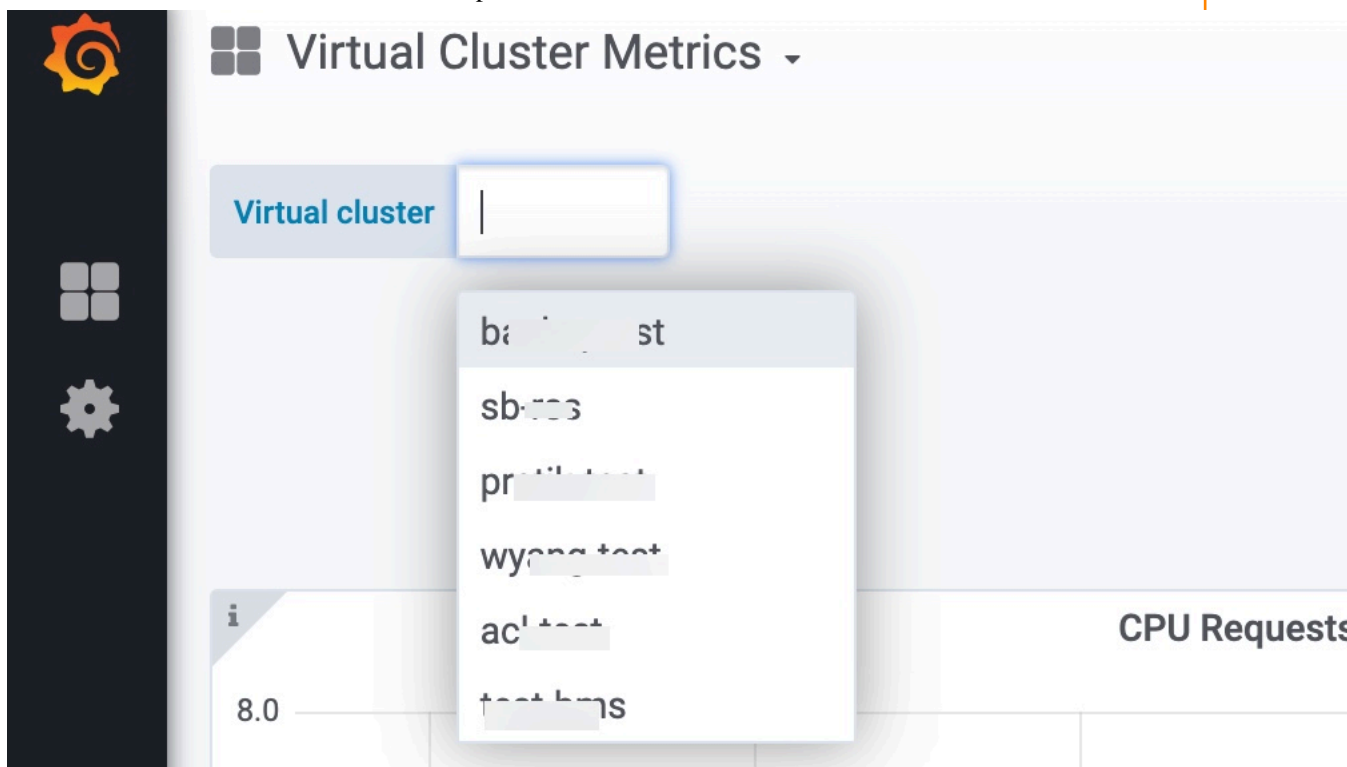
2. Click Administration in the left navigation menu and locate a Service in the Services column.

3. Navigate to the virtual cluster for which you want to see the Grafana dashboard.

4. Click Cluster Details for the virtual cluster.

The Administration/Virtual Cluster page is displayed.

5. Click Grafana Charts.

A read-only version of the Grafana interface opens in a new tab in your browser.


Information about CPU requests, memory requests, jobs, and other information related to the virtual cluster is displayed.

6. In the Virtual Cluster Metrics page, click on a virtual cluster name from the Virtual Cluster dropdown list to view the Grafana charts of that virtual cluster.

Note: You must first view the charts using the GRAFANA CHARTS link. Only then the charts
in the Charts tab get loaded. Otherwise, it displays the The web page at https://*SERVICE.CDE-
NRJCRWG7.APPS.APPS.SHARED-01.KCLOUD.CLDR.COM/GRAFANA/D/USZZ/KUBERNETES?
KIOSK* might be temporarily down or it may have moved permanently to a new web address. error.

CLI TOOL   ⋮   API DOC   📋   JOBS API URL   📋   GRAFANA CHARTS

Configuration	Charts ⓘ	Logs
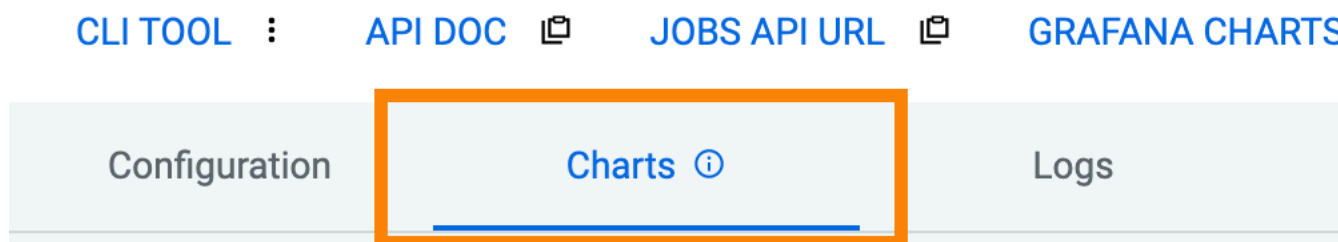
Accessing Grafana dashboards

Cloudera provides pre-built Grafana dashboards comprising metrics data, charts, and other visuals. You can access
pre-built Grafana dashboards to monitor your jobs and virtual clusters in Cloudera Data Engineering. You can
immediately view the Kubernetes and Virtual Cluster Metrics pre-built dashboards in Cloudera Data Engineering.

Before you begin

You must first connect to the Grafana dashboards in Cloudera Data Engineering on premises to view the Kubernetes
and Virtual Cluster Metrics dashboards.

Procedure

1.
After you connect to the Grafana Dashboards from the Cloudera Data Engineering UI, click the ❯ icon to view
the left navigation pane.

2. Click Dashboards > Browse. The Dashboards screen is displayed.

3. In the Browse tab of Dashboards, click Kubernetes or Virtual Cluster Metrics to view the respective dashboard.