

Cloudera Data Engineering 1.5.0

Troubleshooting Cloudera Data Engineering

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The Cloudera logo is displayed in a bold, orange, sans-serif font. The word "CLOUDERA" is written in all caps, with a stylized horizontal line through the middle of the 'E'.

<https://docs.cloudera.com/>

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Cloudera Data Engineering log files

You can view logs for Cloudera Data Engineering (CDE) using the web console, including CDE service logs, virtual cluster logs, and job logs.

To view logs for a CDE service or virtual cluster, click the three-dot menu for the service or virtual cluster, and then select View Logs. When the View Logs modal is displayed, you can download the logs or copy them to the clipboard by clicking the associated icon at the top right of the modal.

To view logs for a job run:

1. In the Cloudera Data Platform (CDP) console, click the Data Engineering tile. The CDE Home page displays.
2. Locate the Virtual Cluster containing the job that you want to troubleshoot.
3. Click View Jobs for the cluster containing the job.
4. Select the job that you want to troubleshoot.
5. In the Run History tab, click the Run ID for the job run that you want to troubleshoot.
6. Go to the Logs tab.
7. Select the log you want to view using the Select log type drop-down menu and the log file tabs.
8. To download the logs, click the Download menu button. You can download a text file of the currently displayed log, or download a zip file containing all log files.

Using Spark history server to troubleshoot Spark jobs

The Spark history server is a monitoring tool that displays information about completed Spark applications. It provides information for debugging such as Spark configurations, DAG execution, driver and executor resource utilization, application logs, and job, stage and task-level details.

To view spark history server information for a job run:

1. In the Cloudera Data Platform (CDP) console, click the Data Engineering tile. The CDE Home page displays.
2. Click Jobs in the left navigation menu.
3. From the drop-down in the upper left-hand corner, select the Virtual Cluster that you want to restore jobs to.
4. Select the job that you want to troubleshoot.
5. Click Jobs Runs in the left menu, and click the Run ID for the job run you want to view the information.
6. Click the Spark UI tab to access the Spark History Server.

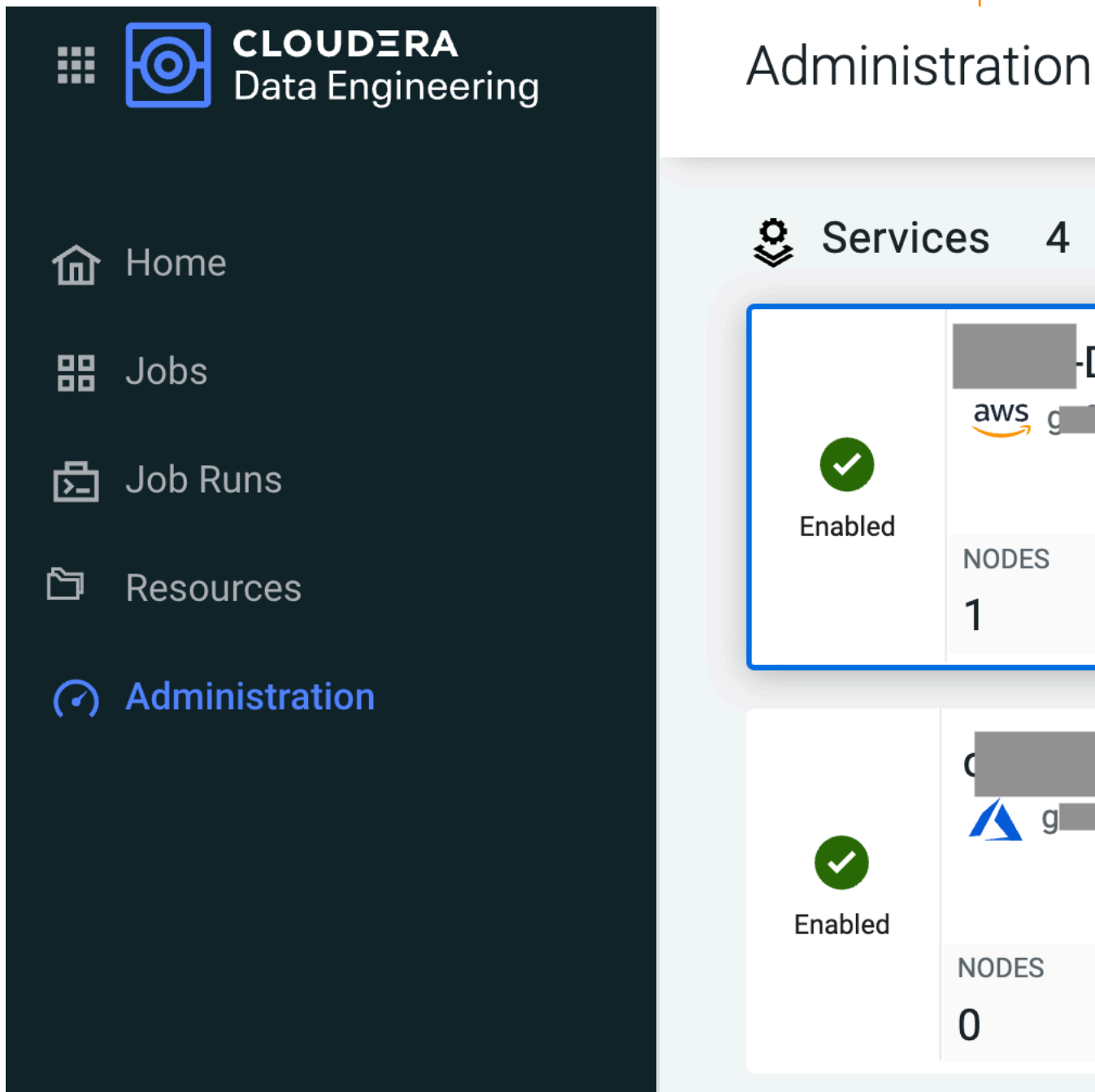
Connecting to Grafana dashboards in Cloudera Data Engineering Private Cloud

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 (CDE) Private Cloud.


For CDE Service

1. In the Cloudera Data Platform (CDP) console, click the Data Engineering tile. The Home page displays.

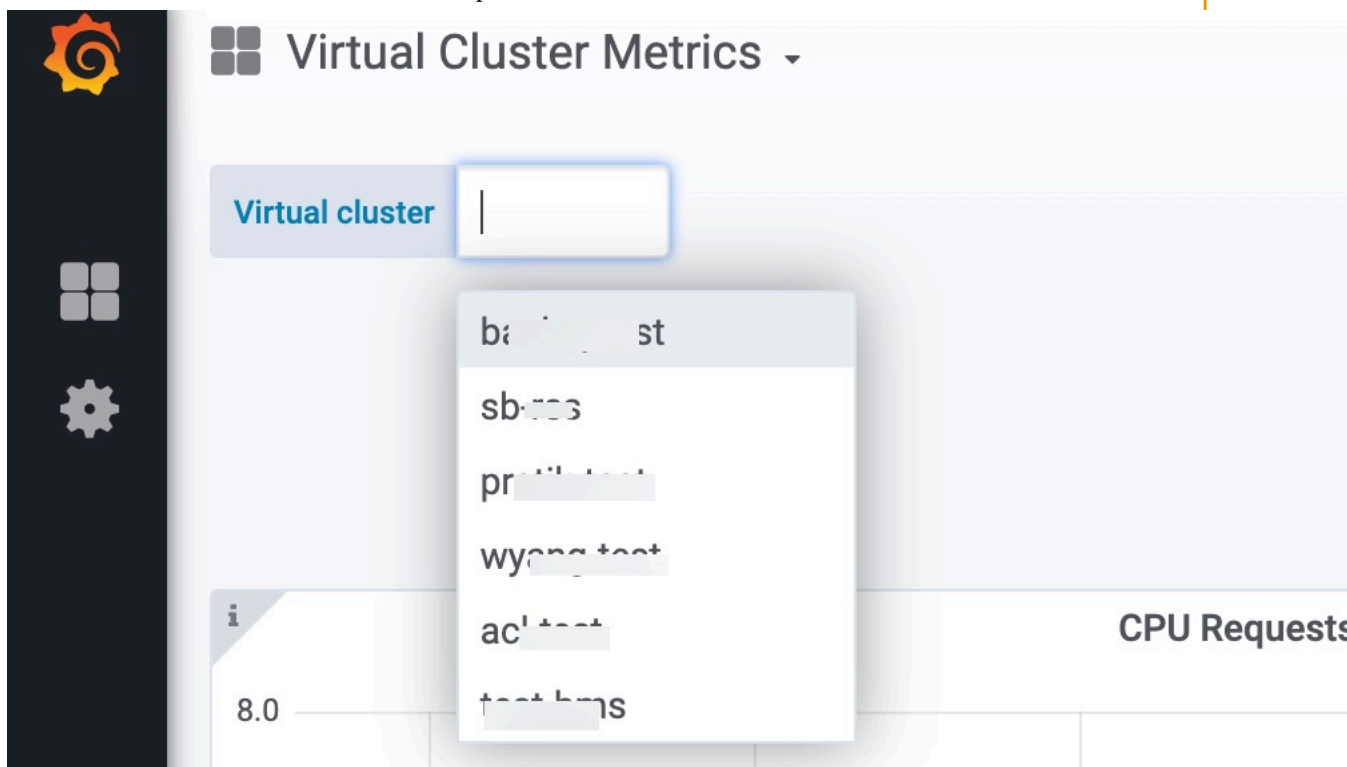
2. Click Administration in the left navigation menu and locate a Service in the Services column and click Service Details on the environment for which you want to see the Grafana dashboard.



The screenshot shows the Cloudera Data Engineering Administration interface. On the left is a dark navigation menu with icons and labels for Home, Jobs, Job Runs, Resources, and Administration (highlighted in blue). The main content area is titled 'Administration' and shows a 'Services' section with a gear icon and a count of 4. Below this, two service cards are visible. The first card, labeled 'aws', has a green checkmark icon, the word 'Enabled', and 'NODES 1'. The second card, labeled 'g', also has a green checkmark icon, the word 'Enabled', and 'NODES 0'.

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 Data Platform (CDP) console, click the Data Engineering tile. The CDE Home page displays.
2. In the Virtual Clusters section, navigate to the virtual cluster for which you want to see the Grafana dashboard.
3. Click View Cluster Details for the virtual cluster.

The Administration/Virtual Cluster page is displayed.


4. Click Grafana Charts.



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

Overview / ...

 **Running**

... **23Mar**

VERSION	VC ID	CREATED BY	CPU	MEMORY	JOBS
1.1.0	-b26	dev-ops-600+77va	0	0 B	0 

[CLI TOOL](#) : [API DOC](#)  [JOBS API URL](#)  **GRAFANA CHARTS**

[Configuration](#) [Charts](#) [Logs](#)

CDE Service

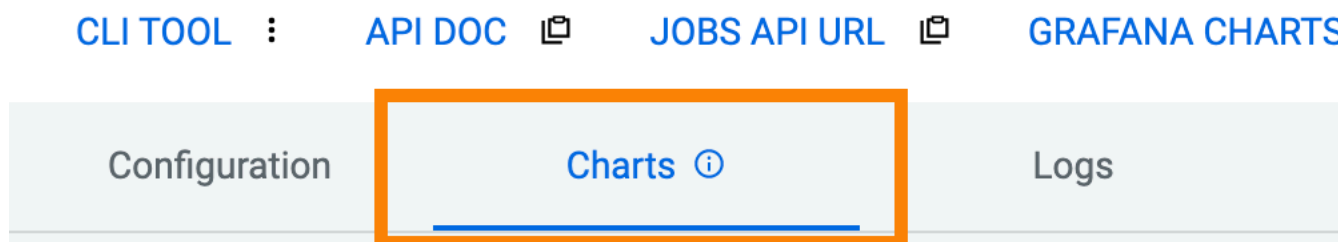
...

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

5. 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.



Cloudera Data Engineering diagnostic bundles and summary status

Cloudera Data Engineering provides the ability to download log files, diagnostic data, and a summary status for the running CDE services and virtual clusters. You can provide this data to Cloudera Support for assistance troubleshooting an issue.

The following section describes about CDE Diagnostic Bundles and Summary Status, and the information collected in each.

Diagnostic Bundle



Important: The CDE service in CDP Private Cloud Data Services does not currently support diagnostic bundles.

The diagnostic bundle is a collection of the logs from the CDE Services. These logs can be downloaded on-demand from CDE UI. CDE gives you the functionality to select the sources for which you want to download the logs and you can also select a predefined or custom time range for these logs.

Information Collected in Diagnostic Bundles

- Container logs for all running CDE service pods (excluding user compute pods).

Summary Status

The Status Summary shows the status of each service instance being managed by the CDE Control Plane. It is a package of JSON files consisting of information related to configuration, monitoring, logging, events and health test results of the service and its instances.

Information Collected in Summary Status

- Status of all cloud resources created during CDE provisioning
- Kubernetes resource status for critical infrastructure pods, deployments, pods, services and events for core service infrastructure pods or virtual cluster infrastructure pods

Downloading summary status for Cloudera Data Engineering

This section describes how to download a summary status of a Cloudera Data Engineering (CDE) Service in Cloudera Data Platform (CDP) using CDE UI.

About this task


To get a current snapshot of the current CDE infrastructure status (cloud resources, Kubernetes pod statuses, pod events and service metadata). This summary status, in the form of a ZIP file, is downloaded to your computer. This is available on both AWS and Azure environments.

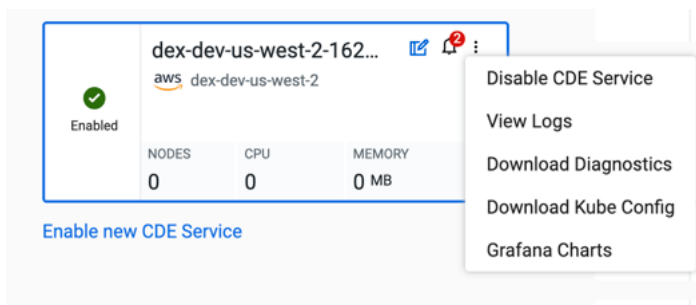
Before you begin

Required Role: DEAdmin

After granting or revoking the role on the environment, run the Sync Users to FreeIPA environment action.

Procedure

1. In the Cloudera Data Platform (CDP) console, click the Data Engineering tile. The CDE Home page displays.
2. Click Administration in the left navigation menu and locate the service in the Services column, and click Service Details on the environment for which you want to download a summary status.
3. In the selected CDE service, click  to see a drop down menu, and select Download Diagnostics.



4. It takes you to the Diagnostics tab of the Service details. Click the Download Summary Status button.

✓ Enabled

cde-

VERSION	CLUSTER ID	CREATED BY	NODES	CPU	MEMORY
1	 	 	1 / 50	0 / 800	0 MB / 3200 GB

DATA LAKE ENVIRONMENT

[GRAFANA CHARTS](#) [RESOURCE SCHEDULER](#)

Configuration Charts Logs **Diagnostics**

[Generate Diagnostics Bundle](#)

Status	Requested Time ↓	Requested Range	Time Range	Actions
✓	Feb AM	 AM	11:24:11 30 minutes	Download Bundle location

Items per page: 10 1 – 1 of 1

[Switch to Old Diagnostics UI](#)

5. Summary Status gets downloaded on your local machine in a Zip file.

Results

When you extract the Summary Status ZIP file that you downloaded from CDE UI, you can see the directories that contain files in JSON format.

Below is an example of format of the Zip file for Summary Status:



Note: In the extracted Summary Status file, cluster.json refers to the CDE service and 'instances' refer to CDE virtual clusters.

```
cde-service-diagnostics-{clusterID}-{timestamp}/
cluster.json           # output from cluster describe
cluster-events.json    # output from get cluster events
cloud-diagnostics.json # cloud resource status (RDS, EFS, EKS, LB, ...)
instances/
  {id}.json            # output from instance id describe
  {id}-events.json     # output from get instance id events
kubernetes/
  namespaces/
    nodes.json
    {namespace}/
      namespace.json
      pods.json
```

```
events.json
deployments.json
replicasets.json
services.json
daemonsets.json
{namespace}/
namespace.json
pods.json
events.json
deployments.json
replicasets.json
services.json
daemonsets.json
...
```