

## Scaling up or down a NiFi Cluster

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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 'E' that has a horizontal bar extending to the right.

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## Scaling up or down a NiFi cluster

You can scale up or down a NiFi cluster based on your requirement by adding or removing nodes respectively.

### Scaling up a NiFi cluster

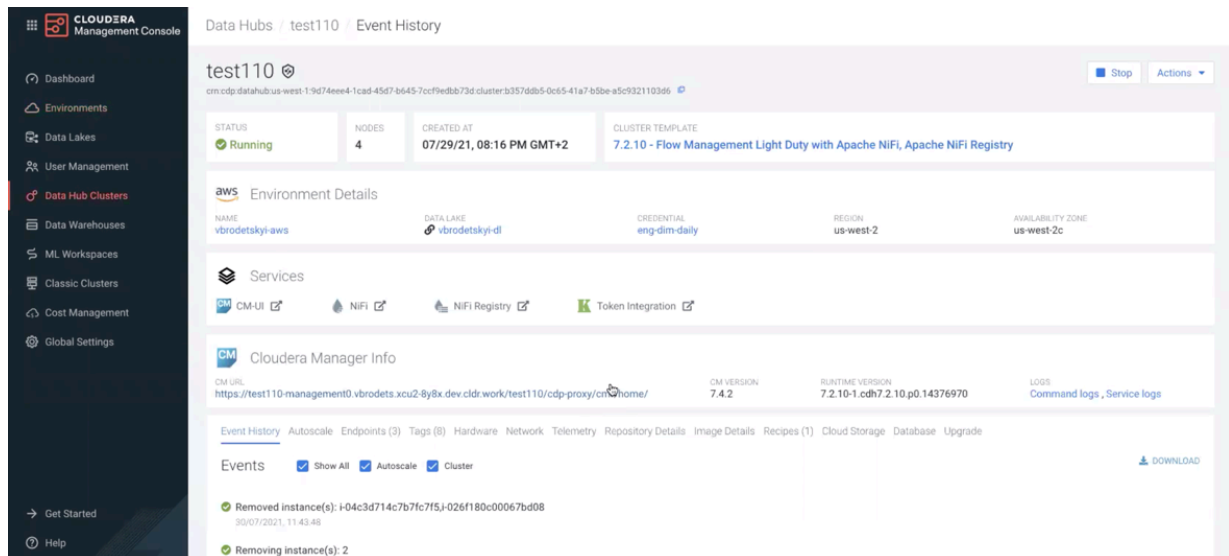
You have a NiFi cluster and you want to increase the throughput by adding new nodes to your NiFi cluster.

#### Before you begin

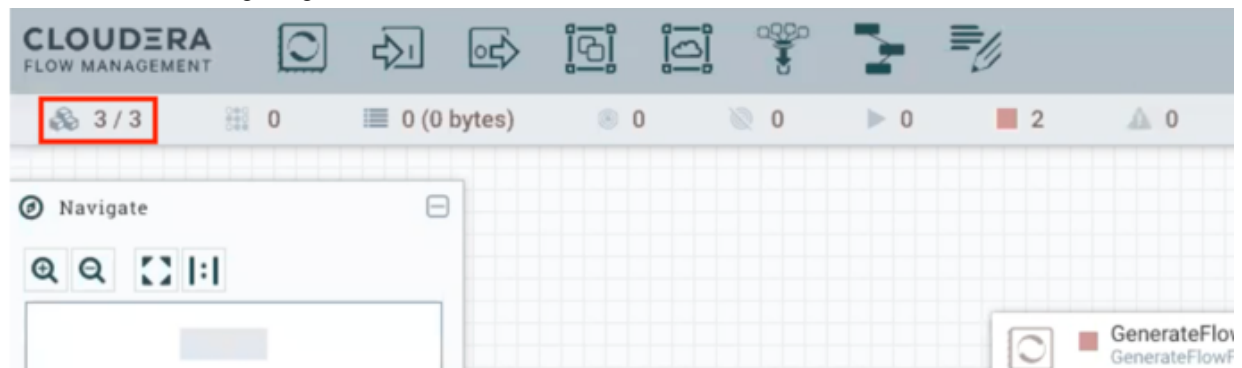
You have a NiFi flow which is running.

#### Procedure

1. Log into CDP Public Cloud UI.
2. Go to Management Console Environments .
3. Select the datahub cluster where your NiFi flow is running.



If you go to the NiFi UI by clicking NiFi, you can check the current number of NiFi nodes in your cluster, as shown in the following image:



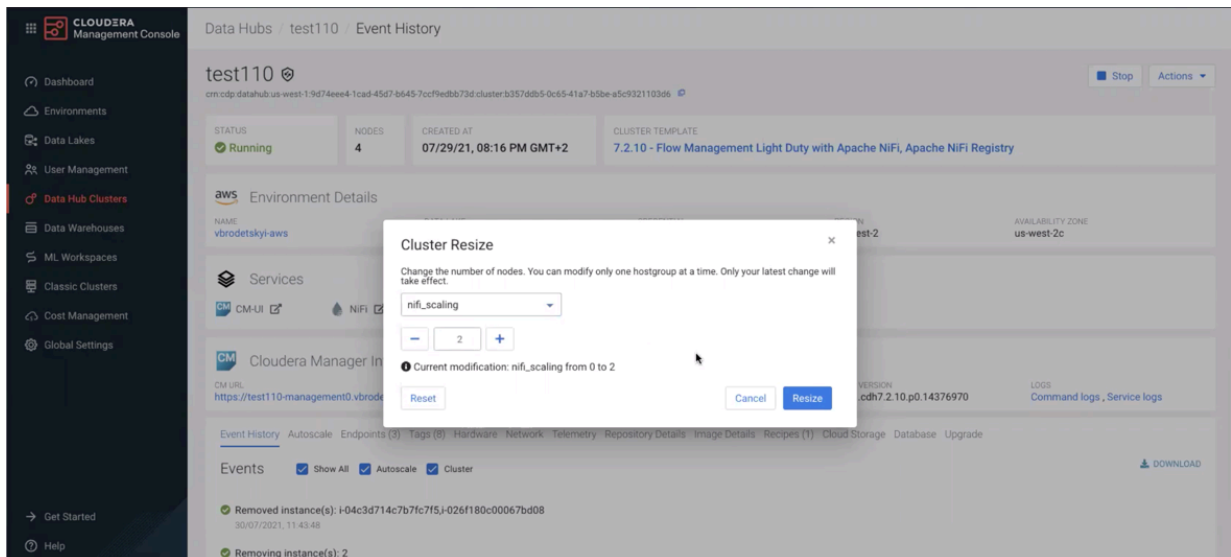
4. Click Actions, and select Resize.

The Cluster Resize window appears.

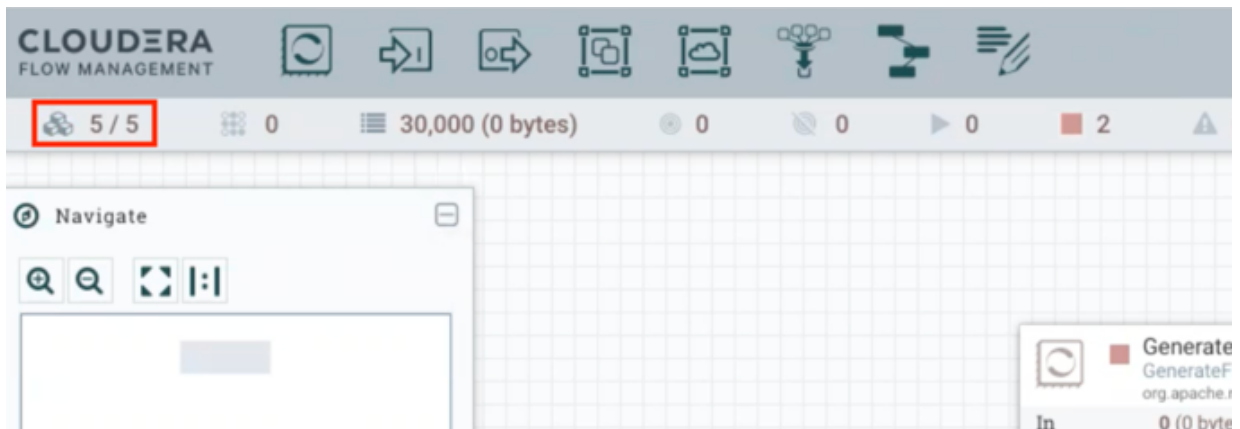
- Select your hostgroup from the dropdown, increase the number of nodes by clicking the + icon, and then click Resize.



**Note:** You need to select the hostgroup carefully. For light duty templates, the hostgroup is nifi\_scaling. For heavy duty templates, the hostgroup is nifi.



It takes some time for the change to take place. In the NiFi UI you can see when the upscale event is completed and the new nodes are added to the NiFi cluster.



### Results

You have now successfully scaled up your NiFi cluster.

## Scaling down a NiFi cluster

You can also remove nodes from your NiFi cluster for cost optimization. For example, scale down the NiFi cluster when there is less data to be processed in order to save infrastructure costs.

### Before you begin

You have a NiFi flow which is running.

### Procedure

- Log into CDP Public Cloud UI.
- Go to Management Console Environments .

3. Select the datahub cluster where your NiFi flow is running.

The screenshot shows the Cloudera Management Console interface. The left sidebar contains navigation options like Dashboard, Environments, Data Lakes, User Management, Data Hub Clusters, Data Warehouses, ML Workspaces, Classic Clusters, Cost Management, and Global Settings. The main content area displays details for a cluster named 'test110'. Key information includes: STATUS: Running, NODES: 6, CREATED AT: 07/29/21, 08:16 PM GMT+2, and CLUSTER TEMPLATE: 7.2.10 - Flow Management Light Duty with Apache NiFi, Apache NiFi Registry. Environment details for AWS are shown, including NAME: vbrodetskiy-aws, DATA LAKE: vbrodetskiy-dl, CREDENTIAL: eng-dim-daily, REGION: us-west-2, and AVAILABILITY\_ZONE: us-west-2c. Services listed include CM-UI, NiFi, NiFi Registry, and Token Integration. Cloudera Manager Info shows CM VERSION: 7.4.2 and RUNTIME VERSION: 7.2.10-1.cdh7.2.10.p0.14376970. A Management table at the bottom lists cluster instances with columns for ID, FQDN, Status, Private IP, and Public IP.

Before scaling down you can go to the NiFi UI by clicking NiFi to check the current number of NiFi nodes you have in your NiFi cluster, as shown in the following image:

The screenshot shows the Cloudera Flow Management NiFi UI. The top navigation bar includes the Cloudera logo and various icons. A status bar at the top displays '5/5' nodes, '0' tasks, '50,000 (0 bytes)' data, and other metrics. A 'Navigate' panel on the left shows a search bar and navigation controls. A flow diagram is visible in the background, and a tooltip for a 'GenerateFlow' node is shown on the right, displaying statistics: In: 0 (0 bytes), Read/Write: 0 bytes / 0 I, Out: 20,000 (0 b), and Tasks/Time: 20,000 / 00.

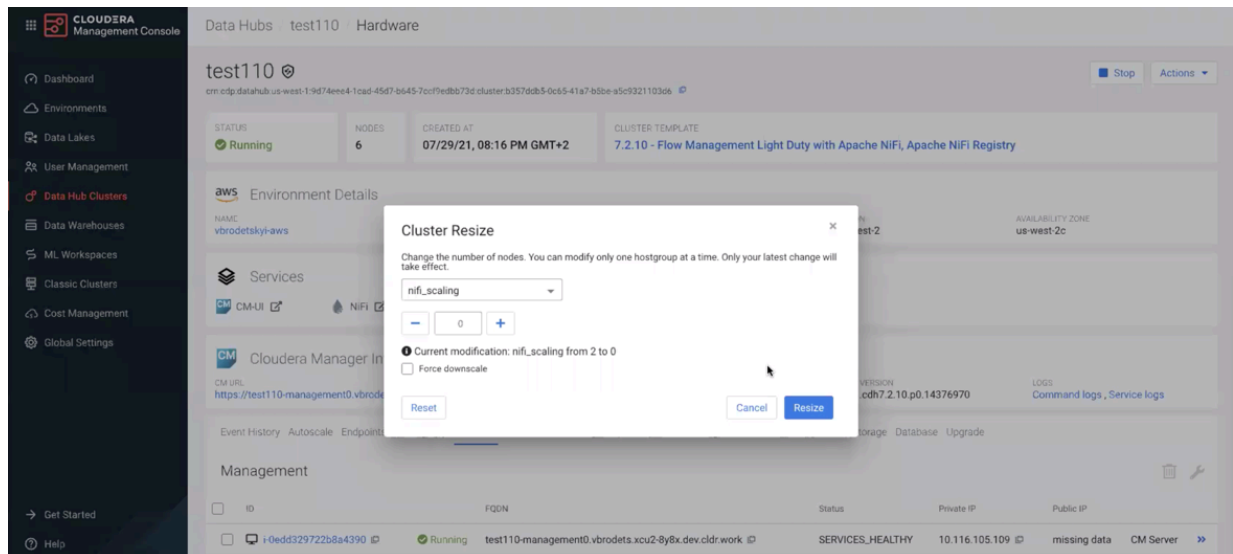
4. Click Actions, and select Resize.

The Cluster Resize window appears.

- Select your hostgroup from the dropdown, decrease the number of nodes by clicking the - icon, and then click Resize.



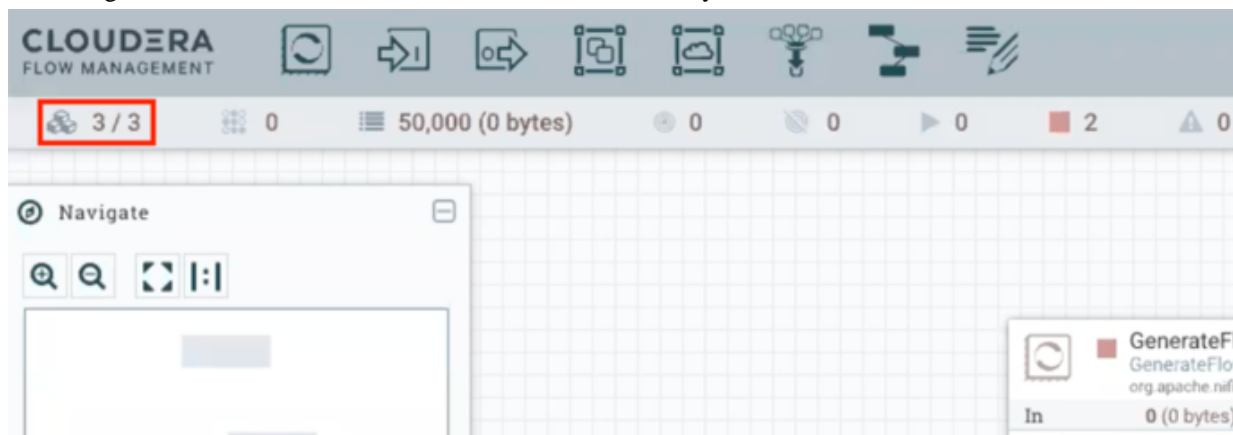
**Note:** You need to select the hostgroup carefully. For light duty templates, the hostgroup is nifi\_scaling. For heavy duty templates, the hostgroup is nifi.



It takes some time for the change to take place. In the background, the following processes occur:

- The nodes to be removed are disconnected from the NiFi cluster.
- Processing of data on these nodes is stopped.
- The data located on the nodes to be removed are moved to the remaining nodes of the cluster. This ensures no data loss during a scale down event.
- The NiFi service is stopped on these nodes
- The underlying virtual machines are stopped and deleted.

You can go to the NiFi UI to check that the nodes are successfully removed from the NiFi cluster:



The scale down event is complete only after the nodes are no longer listed in the Hardware tab of the Data Hub Clusters page, as shown in the following image:

The screenshot shows the Cloudera Management Console interface. The left sidebar contains navigation options like Dashboard, Environments, Data Lakes, User Management, Data Hub Clusters, Data Warehouses, ML Workspaces, Classic Clusters, Cost Management, and Global Settings. The main content area is titled 'Data Hubs / test110 / Hardware' and is divided into several sections:

- Cloudera Manager Info:** Shows CM URL, CM VERSION (7.4.2), SOFTWARE VERSION (7.2.10-1.cdh7.2.10.p0.14376970), and LOGS (Command logs, Service logs).
- Management:** A table with columns for ID, FQDN, Status, Private IP, and Public IP. It lists one CM Server with status 'Running' and 'SERVICES\_HEALTHY'.
- NiFi:** A table with columns for ID, FQDN, Status, Private IP, and Public IP. It lists three NiFi nodes, all with status 'Running' and 'SERVICES\_HEALTHY'.
- Nifi\_scaling:** A table with columns for ID, FQDN, Status, Private IP, and Public IP. It lists two NiFi nodes, both with status 'Decommissioned'.

## Results

You have now successfully scaled down your NiFi cluster.