

# Fixing the Four-Machine SAS-Hadoop Training Environment

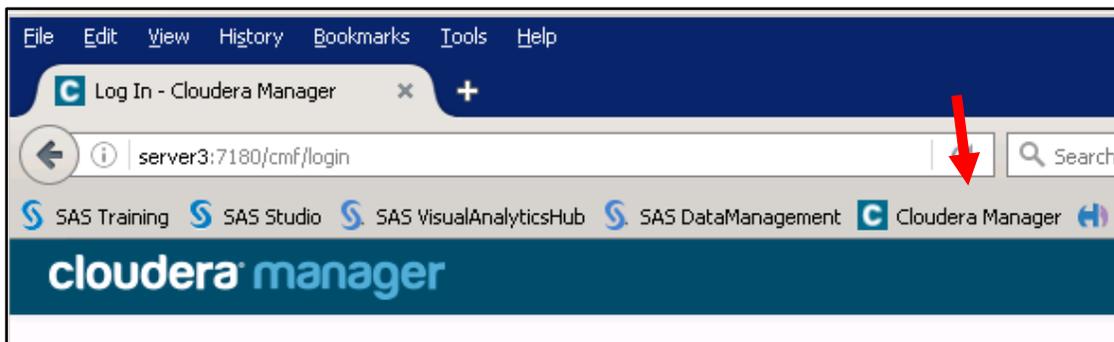
The purpose of this document is to describe methods to restart software services on the Education Division's four-machine SAS-Hadoop training environment. This includes how to restart the Hadoop cluster, how to stop a LASR server, and how to reboot the three Linux machines (server1, server2, and server3), which restarts all the SAS services as well as the Hadoop cluster. Any one of these might resolve any issues that you have and enable you to continue using the system.

Restarting the Hadoop cluster takes six to eight minutes and is recommended as the first thing to try. Stopping a LASR server is very quick. This method should be considered if it is possible that the LASR server you are using is over-taxed or if you suspect that multiple LASR servers might be started and over-taxing memory. Restarting server1, server2, and server3 should be done as a last resort as it takes approximately 1.25 hours for all of the SAS servers and the Hadoop cluster to be restarted, and you will need to wait that amount of time before you can continue your work.

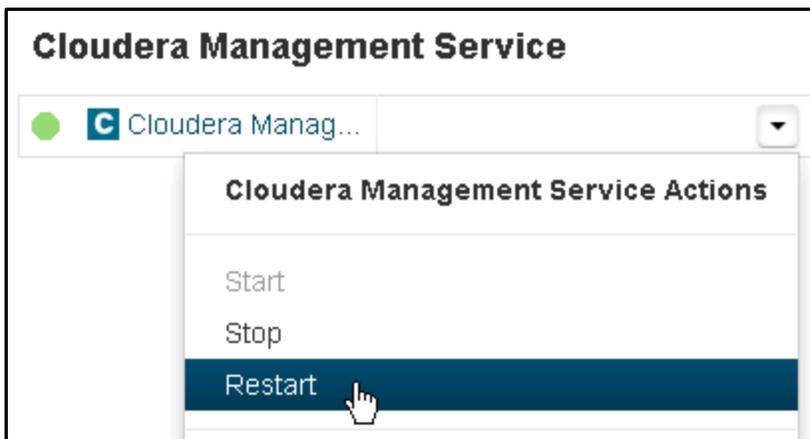
## How to Restart the Hadoop Cluster

Perform these steps from the Windows client:

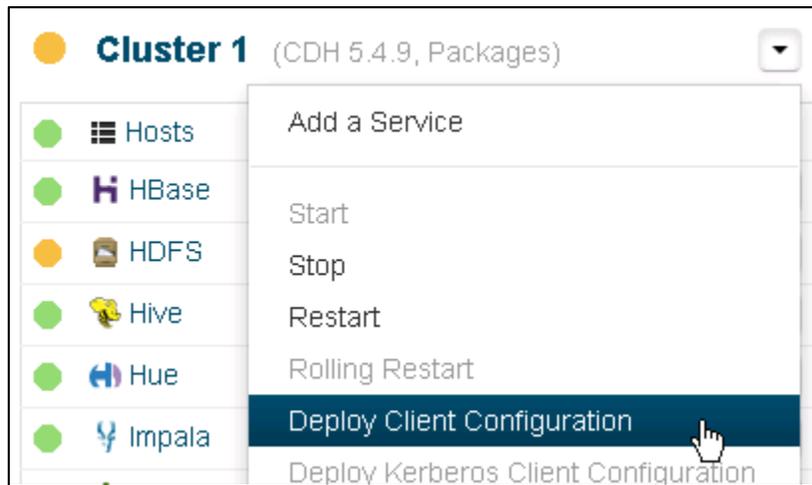
1. Start **Firefox**.
2. Click the **Cloudera Manager** link from the Firefox shortcut bar.



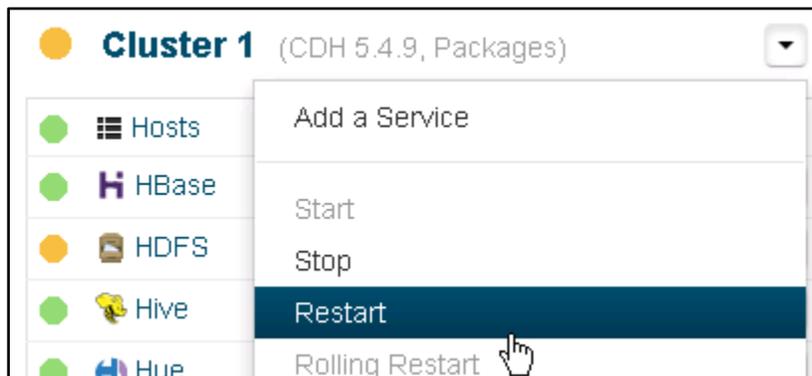
3. The login is **admin** for the user ID and **Student1** for the password. The password might be saved for you, in which case simply click **Login**.
4. Scroll down to find the pull-down button next to **Cloudera Manager Service**. Click the button and then select **Restart**.



5. Click **Restart** to confirm.
6. When that finishes (after about 20 seconds), click the pull-down button for **Cluster 1** and select **Deploy Client Configuration**.



7. Click **Deploy Client Configuration** to confirm.
8. When that action finishes after approximately 60 seconds, click the pull-down button for **Cluster 1** and select **Restart**. This restarts all cluster services. Click **Restart** to confirm.



This takes approximately three minutes to complete.

## How to Stop a LASR Server Session

From a SAS session in SAS Enterprise Guide or SAS Studio server, execute the following program:

```
options set=GRIDHOST='server2.demo.sas.com'
        set=GRIDINSTALLLOC="/opt/sas/TKGrid_REP";

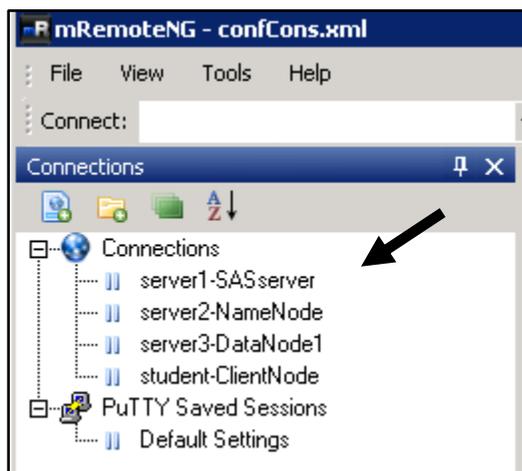
proc lasr stop port=4321;
    performance host='server2.demo.sas.com';
run;
```

Note that the value for the PORT= option depends on the port that was specified when the LASR server session was started. The port number 4321 is used in the demonstration programs for the HDESS and DIACHD course. The LASR server used by SAS Visual Analytics and SAS Visual statistics can also be restarted using the Visual Analytics application, although that is not documented here.

## How to Restart the Linux Servers: server1, server2, and server3

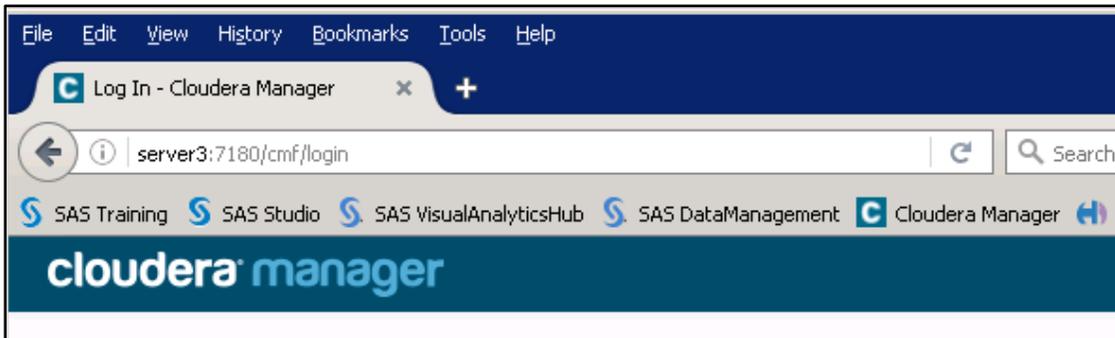
This method takes approximately 1.25 hours to complete!

1. Double-click the **mRemoteNG** application on the desktop of the client machine.
2. Double-click the **server1** connection.



3. At the command prompt, type **reboot** and press Enter.
4. In mRemoteNG, double-click the **server2** connection.
5. At the command prompt, type **reboot** and press Enter.
6. In mRemoteNG, double-click the **server3** connection.
7. At the command prompt, type **reboot** and press Enter.

8. To monitor the state of the servers, do the following:
  - a. Start **Firefox**.
  - b. Click the **Cloudera Manager** link from the Firefox shortcut bar.



- c. The login is **admin** for the user ID and **Student1** for the password. The password might be saved for you, in which case simply click **Login**.
- d. Monitor the state of the cluster services. When all of them turn green, the system, including all the SAS services, are ready to go.

**Note:** On some versions of this environment, a few services are red rather than green, but the system is still okay.