

### *Cloudera Manager 7 Installation-Steps*

1. Register an account: <https://sso.cloudera.com/onboarding.html?stepId=pocForm>
2. Get installer for CDP Installer (60 Days Trial) <https://www.cloudera.com/downloads/cdp-private-cloud-trial/cdp-private-cloud-base-trial.html>
3. Check for supportable Linux OS(Ubuntu 20.04 or Centos) .Supporting OS :  
<https://supportmatrix.cloudera.com/>, and get Ubuntu 20.04,  
<https://releases.ubuntu.com/20.04/ubuntu-20.04.4-desktop-amd64.iso>
4. Request Trial at <https://www.cloudera.com/downloads/cdp-private-cloud-trial/cdp-private-cloud-base-trial.html>
5. Install Cloudera Manager with steps below( they are mentioned in the URL above too):
  - a. Download Cloudera Manager Installer and install:
  - b. \$ wget <https://archive.cloudera.com/cm7/7.4.4/cloudera-manager-installer.bin>
  - c. \$ chmod u+x cloudera-manager-installer.bin
  - d. \$ sudo ./cloudera-manager-installer.bin
6. Once installer completes, create SSH user( cdproot) with Root/Admin Privileges  
Option-1:

```
sudo adduser cdproot
sudo usermod -aG sudo cdproot
```

Option-2:

```
sudo adduser cdproot sudo
Checks: groups cdproot
```
7. Install and start OpenSSH-Server to run at 22

```
# sudo apt-get install openssh-server
# sudo systemctl enable ssh
# sudo systemctl start ssh
```
8. SSH Login and Root Permission:
  - a. SSH Login:

```
sudo nano /etc/ssh/sshd_config
or
sudo nano /etc/ssh/sshd_config
Add This : PermitRootLogin yes
```
  - b. Root User:

```
sudo gedit /etc/sudoer and allow NOPASSWRD logins
```
9. Start SCM Server `sudo service cloudera-scm-server start`  
Other options:

```
sudo service cloudera-scm-server start
sudo service cloudera-scm-server stop
sudo service cloudera-scm-server restart
```
10. Access Cloudera Manager at `https://<ip>:7180, username/password admin/admin/`
11. Follow on-screen details to install and configure all parcels/packages  
(Works in most scenarios)...

## Cloudera Data Platform installation using ~~Cloudera~~ Cloudera Manager 7:

Now, follow the steps below to complete installation of CDP :

1. Login to Cloudera Manager 7 with given URL <http://54.255.20.131:7180> and credentials
2. Click on continue and define Cluster, Cluster-BS  
Add Traditional Bare Metal Cluster

The screenshot shows the 'Cluster Basics' configuration page in Cloudera Manager. On the left, a vertical sidebar contains five steps: 1. Cluster Basics (selected), 2. Specify Hosts, 3. Select Repository, 4. Install Parcels, and 5. Inspect Cluster. The main content area is titled 'Cluster Basics' and features a 'Cluster Name' input field with the value 'Cluster 1'. Below this is a diagram of a 'Base Cluster' showing storage, compute, and metadata nodes. A description states: 'A Base Cluster contains storage nodes, compute nodes, and other services such as metadata and security collocated in a single cluster.' At the bottom, there are 'Cancel', 'Back', and 'Continue' buttons.

3. Click on continue and search the server system by Hostname  
Add Traditional Bare Metal Cluster

The screenshot shows the 'Specify Hosts' configuration page in Cloudera Manager. The sidebar on the left now highlights step 2, 'Specify Hosts'. The main content area is titled 'Specify Hosts' and includes a note: 'Hosts should be specified using the same hostname (FQDN) that they will identify themselves with.' There is a large 'Hostname' input field. Below it, a hint suggests: 'Hint: Search for hostnames or IP addresses using pattern'. At the bottom, there is an 'SSH Port' dropdown menu set to '22' and a 'Search' button. The 'Continue' button at the bottom right is now active.

4. Before clicking Continue create another user with root permission/privileges

Option-1:

```
sudo adduser cdproot
sudo usermod -aG sudo cd root
```

Option-2:

```
sudo adduser cdproot sudo
Checks: groups cdproot
```

5. Permit RootLogin  
sudo nano /etc/ssh/sshd\_config  
Add This : PermitRootLogin yes

sudo gedit /etc/sudoer and allow NOPASSWRD logins

6. Click next and select “System JDK” and continue, need start installing all packages.
7. Refer “*InstalltionDetails- SCU.pdf*” from [Santa Clara University](#) .

All Developer Addon-Tools Installations:

1. Clouder Data Science Workbench(CDSW) -  
<https://docs.cloudera.com/cdsw/1.9.2/installation/topics/cdsw-installing-cloudera-data-science-workbench.html>
2. NiFi Installation:

*Access and Environment for CDP Data Developer Exam Candidates:*

### **CDP Access:**

<Post Installation>

### **Systems Requirements for the Participants:**

1. **CDP Access** or own installation ( if anyone can manage own)
- [2.] Pycharm Edu and Python - Python ~~Coding~~[Coding](#) for **PySpark**
- 2.[3.] IntelliJ IDE Edu- Java and Scala Coding for **Spark Coding with Scala**
- 3.[4.] Firefox and Chrome Browsers –
  - a. CDP Data Developer: <https://www.cloudera.com/about/training/certification/cdp-datadev-exam-cdp-3001.html>
  - b. FAQ: <https://www.cloudera.com/about/training/certification/cdp-faqs.html>
- 4.[5.] **Recommended Resources Access:**
  - a. Supporting Cloudera Courses: <https://education.cloudera.com/store?utf8=%E2%9C%93&st=free&commit=>
- 5.[6.] **Remote Access to CDP for PySpark Shell:**
  - a. Create Linux Users on CDP Server , example CDP3001-001
  - b. Getting remote session on Smart Putty,  
<https://sysprogs.com/SmartTTY/download/>
  - c. Starting Spark shell , \$ spark-shell or spark2-shell
  - d. Checks with Sample Code:  
Scala>val log = sc.textFile("/tmp/logs")  
scala>print(log)
- 6.[7.] Another

***Note: Practical Labs on Spark( Pythona) on Shell, Jupyter Notebook and PyCharm, Scala on Shell, IntelliJ and Jupyter Notebook and all necessary labs during the sessions, started making them!***

## Troubleshooting:

### 1. TS-01: Cloudera Manager Hangs When Installing Parcels

Suggested changes for resolution:

#### a. Map Hostname with IP in Hosts file:

```
$sudo gedit /etc/hosts or
```

```
$sudo nano /etc/hosts or
```

```
$sudo vi /etc/hosts
```

Map IP with hostname

```
127.0.0.1 <Hostname>
```

References: <https://community.cloudera.com/t5/Support-Questions/Cloudera-Manager-Hangs-When-Installing-Parcels/m-p/53770#M46950>

#### b. Restart **CLOUDERA SOFTWARE AGENT**:

```
sudo ssh <hostname>
```

```
systemctl restart cloudera-scm-agent
```

## Install Parcels

The selected parcels are being downloaded and installed on all the hosts in the cluster.

There was an error when communicating with the server. See the server log file, typically /var/log/cloudera-scm-server/cloudera-scm-server.log, for more information.

▼ **Cloudera Runtime 7.1.7**

Downloaded: 100%

Distributed: ...

Unpacked: 0/1

Activated: 0/1



There are 1 error(s).

- 'ascii' codec can't decode byte 0xe2 in position 147118: ordinal not in range(128)

Another possible way to resolve these errors is to restart the agent:

```
$ ssh <hostname>
```

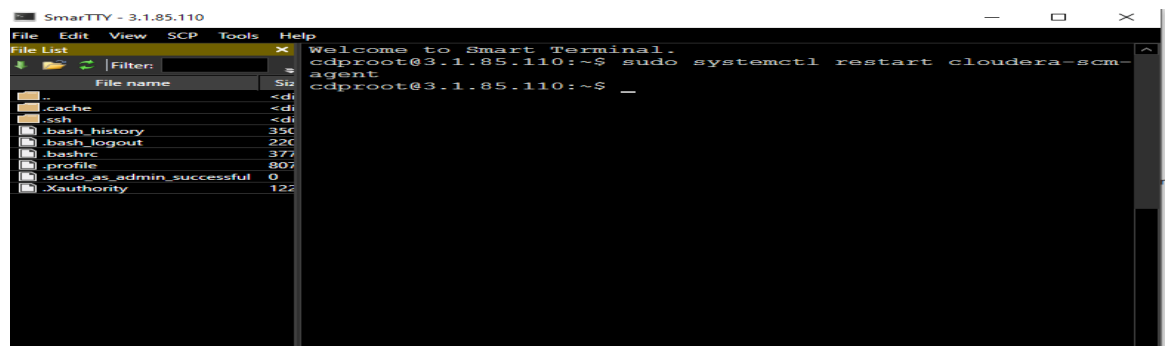
```
$ systemctl restart cloudera-scm-agent
```

☒ All (1)

☐ Running (1)

☐ Failed (0)

☐ Completed (0)

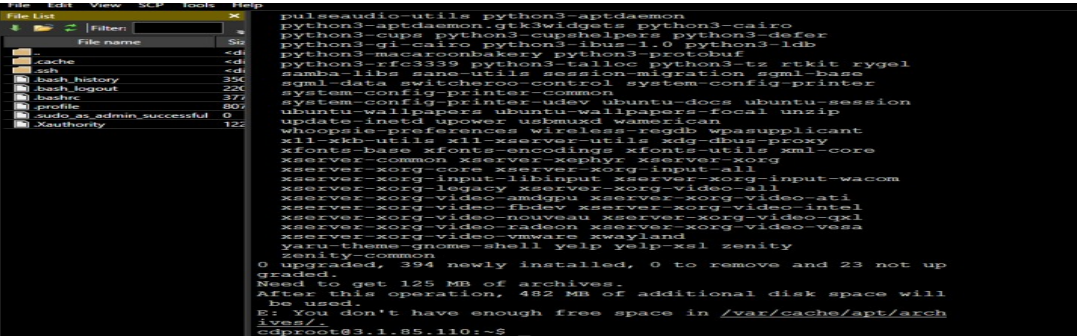


#### c. Check **FREE STORAGE NEED FOR UNPACKING PARCELS**:

\$ df <options> [devices], df /dev/sda

```
E: You don't have enough free space in /var/cache/apt/archives/.
cdproot@3.1.85.110:~$ df
Filesystem            1K-blocks      Used Available  Use% Mounted on
/dev/root              30308240 18740312  11551544    62% /
devtmpfs              7993588      0    7993588      0% /dev
tmpfs                 8000216      80    8000136      1% /dev/shm
tmpfs                 1600044    1736    1598308      1% /run
tmpfs                  5120        0      5120      0% /run/lock
tmpfs                 8000216      0    8000216      0% /sys/fs/cgroup
/dev/loop0            25728      25728      0    100% /snap/amazon-ssm-agent/5656
/dev/loop1            63488      63488      0    100% /snap/core20/1518
/dev/nvme0n1p15       106858     5321    101537      5% /boot/efi
/dev/loop2            56960     56960      0    100% /snap/core18/2409
/dev/loop3            48128     48128      0    100% /snap/snapd/16010
/dev/loop4            69504     69504      0    100% /snap/lxd/22753
cm_processes          8000216      52    8000164      1% /run/cloudera-scm-agent/proc
/dev/loop5            48128     48128      0    100% /snap/snapd/16292
/dev/loop6            56960     56960      0    100% /snap/core18/2538
```

Check installing small package: sudo apt-get install gedit



- d. Check Whether download Package available or not:  
Location : oudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel does not exist

INSTALL PROGRESS

The selected parcels are being downloaded and installed on all the hosts in the cluster.

Cloudera Runtime 7.1.7

Downloaded: 100%

Distributed: ...

Unpacked: 0/1

Activated: 0/1

There are 1 error(s).

- Src file /opt/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel /CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel does not exist

Another possible way to resolve these errors is to restart the agent:

```
$ ssh <hostname>
$ systemctl restart cloudera-scm-agent
```

All (1)

Running (1)

Failed (1)

Completed (0)

Hostname	Throughput	Status	Errors
ip-172-31-27-62.ap-southeast-1.compute.internal	54.8 GiB/s	UNPACKING	Src file /opt/cloudera/parcels/.flood/CDH-7.1.7-1....

```

/opt/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel

SmarTTY - 3.1.85.110
File Edit View SCP Tools Help
File List
Filter:
File name Size
. 0
diag.json 0
/dev/loop6 56960 56960 0 100% /snap/core18/2538
/dev/loop7 63488 63488 0 100% /snap/core20/1611
tmpfs 1600040 0 1600040 0% /run/user/1001
cdproot@3.1.85.110:~$ who cloudera
bash: line 0: cd: /home/cdproot/oudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel
directory
cdproot@3.1.85.110:~$ cd /opt/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel
bash: line 0: cd: /home/cdproot/oudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel
directory
cdproot@3.1.85.110:~$ cd /opt/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel
bash: line 0: cd: /home/cdproot/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel
directory
cdproot@3.1.85.110:~$ cd /opt/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel
bash: line 0: cd: /home/cdproot/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel
directory
cdproot@3.1.85.110:~$ cd /opt/cloudera/parcels
bash: line 0: cd: /home/cdproot/cloudera/parcels: No such file or directory
cdproot@3.1.85.110:~$ cd /opt/cloudera/parcels
bash: line 0: cd: /opt/cloudera/parcels: No such file or directory
cdproot@3.1.85.110:~$ cd /opt/cloudera/parcels
cdproot@3.1.85.110:/opt/cloudera/parcels$ ls
cdproot@3.1.85.110:/opt/cloudera/parcels$ ls
cdproot@3.1.85.110:/opt/cloudera/parcels$ hostname
ip-172-31-27-62
cdproot@3.1.85.110:/opt/cloudera/parcels$ sudo systemctl restart cloudera-scm-agent
cdproot@3.1.85.110:/opt/cloudera/parcels$ cd /opt/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel$
diag.json
cdproot@3.1.85.110:/opt/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel$
diag.json
cdproot@3.1.85.110:/opt/cloudera/parcels/.flood/CDH-7.1.7-1.cdh7.1.7.p0.15945976-focal.parcel$
Active:

```

2. TS-02: Trial License Issues
- Write with environment details for Trial License at <https://www.cloudera.com/contact-sales.html>

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Comments

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License

You are currently using a trial version of Cloudera Data Platform. You have 58 days left.

Owner	Trial License
License Key	72ef3466-2863-41bb-b89c-11126931ef69
Start Date	Saturday, August 27, 2022 12:00 AM UTC
Expiration Date	Thursday, October 27, 2022 12:00 AM UTC
Deactivation Date	Thursday, October 27, 2022 12:00 AM UTC

Update License File

(Accept .txt or .zip)