



# Cloudera QuickStart VM

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### **Release Information**


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## QuickStart VM Software Versions and Documentation

VM Version	Documentation
CDH 5 and Cloudera Manager 5	<ul style="list-style-type: none"> <li>To learn more about CDH 5 and Cloudera Manager 5, see the <a href="#">Cloudera 5 documentation</a>.</li> <li>For the latest important information about new features, incompatible changes, and known issues, see the <a href="#">Release Guide</a>.</li> <li>For information on the versions of the components in the latest release, and links to each project's changes files and release notes, see the packaging section of <a href="#">Version and Download Information</a>.</li> <li>Cloudera Manager is installed in the VM but is turned off by default. Cloudera strongly recommends that if you use Cloudera Manager, you configure the VM with a minimum of 8 GiB RAM and two virtual CPU cores. (If you use the Cloudera Enterprise version, Cloudera recommends 10 GiB of RAM.) Cloudera Manager and all of the CDH services might not launch properly with less RAM. (By default, the VM uses 4 GiB of RAM and one virtual CPU core.) See <a href="#">Prerequisites</a>.</li> </ul> <p>To use Cloudera Manager, open either the <b>Launch Cloudera Express</b> icon or the <b>Launch Cloudera Enterprise (trial)</b> icon from the desktop of the VM. After launching Cloudera Manager, all of the services in CDH are started, although it might take several minutes for Cloudera Manager to start all of the services. To conserve resources and improve performance, Cloudera recommends that you stop services you do not plan to use. Changes made to configuration files before launching Cloudera Manager are not preserved.</p> <p>You can start or reconfigure any installed services using the web interface that is automatically displayed when the VM starts.</p> <div>  <p><b>Warning:</b> If Cloudera Manager is running, do not use init scripts from the command line to start, stop, or configure CDH components. Doing so leaves the cluster in an undefined state that could result in data loss. Use only Cloudera Manager to start, stop, or configure CDH components when running Cloudera Manager.</p> </div>

## QuickStart VM Administrative Information

In most cases, the QuickStart VM requires no administration beyond managing the installed products and services. If additional administration is required or if problems occur, this topic provides information about accounts as well as possible explanations of and solutions to some common problems.

### Accounts

Once you launch the VM, you are automatically logged in as the `cloudera` user:

- username: `cloudera`
- password: `cloudera`

The `cloudera` account has `sudo` privileges in the VM. The `root` account password is `cloudera`.

The root MySQL password (and the password for other MySQL user accounts) is also `cloudera`.

Hue and Cloudera Manager use the same credentials.

### QuickStart VMware Image

To launch the VMware image, you need either VMware Player for Windows and Linux, or VMware Fusion for Mac.



**Note:** VMware Fusion works only on Intel architectures, so older Macs with PowerPC processors cannot run the QuickStart VM.

### QuickStart VirtualBox Image

Some users have reported problems running CentOS 6.4 in VirtualBox. If a kernel panic occurs while the VirtualBox VM is starting up, you can try to work around this problem by opening the **Settings > System > Motherboard** tab, and selecting **ICH9** instead of **PIIX3** for the chip set. If you have not already done so, you must also enable **I/O APIC** on the same tab.

### QuickStart KVM Image

The KVM image provides a raw disk image that can be used by many hypervisors. Configure machines that use this image with sufficient RAM. See [Cloudera QuickStart VM](#) for the VM size requirements.

## Cloudera Docker Container

The Cloudera Docker image is a single-host deployment of the Cloudera open-source distribution, including CDH and Cloudera Manager. You can use this environment to learn Hadoop, try new ideas, and test and demonstrate your application.



**Note:** Cloudera does not support CDH cluster deployments using hosts in Docker containers.

Docker is different from other virtual machines that isolate or simulate access to the host's hardware, so that entire guest operating systems can run on them. Docker uses a Linux container, which partitions resources of the host operating system; the container has its own view of the filesystem and other resources, but it runs on the same kernel. Docker provides tooling, a packaging format, and infrastructure around Linux containers and related technologies.

Docker is well supported in several recent Linux distributions. For example, on Ubuntu 14.04, you can install Docker using the following command:

```
sudo apt-get install docker.io
```

## Importing the Cloudera QuickStart Image

To download and import the image:

1. Download the latest docker image from [Download QuickStart VMS](#) by choosing "Docker Image" in the platform list.
2. Expand the downloaded `tar.gz` file.
3. Navigate into the resulting folder.
4. Import the docker image:

```
docker import cloudera-quickstart-vm-5.13.0-0-beta-docker.tar
```

## Running a Cloudera QuickStart Container

To run a container using the image, you must know the name or hash of the image. If you followed the import instructions above, the name is `cloudera/quickstart:latest`. The hash is also printed in the terminal when you import, or you can look up the hashes of all imported images with:

```
docker images
```

Once you know the name or hash of the image, you can run it:

```
docker run --hostname=quickstart.cloudera --privileged=true -t -i [OPTIONS] [IMAGE]  
/usr/bin/docker-quickstart
```

The required flags and other options are described in the following table:

**Table 1: Required Flags and Options**

Option	Description
<code>--hostname=quickstart.cloudera</code>	Required: Pseudo-distributed configuration assumes this hostname.
<code>--privileged=true</code>	Required: For HBase, MySQL-backed Hive metastore, Hue, Oozie, Sentry, and Cloudera Manager.
<code>-t</code>	Required: Allocate a pseudoterminal. Once services are started, a Bash shell takes over. This switch starts a terminal emulator to run the services.
<code>-i</code>	Required: If you want to use the terminal, either immediately or connect to the terminal later.
<code>-p 8888</code>	Recommended: Map the Hue port in the guest to another port on the host.
<code>-p [PORT]</code>	Optional: Map any other ports (for example, 7180 for Cloudera Manager, 80 for a guided tutorial).
<code>-d</code>	Optional: Run the container in the background.

The default Docker settings for memory and CPU are used when running the image. Check to make sure they are appropriate for the Cloudera QuickStart, including at least 2 CPUs per node and enough memory available for the container to support the QuickStart services.

Use `/usr/bin/docker-quickstart` to start all CDH services, and then run a Bash shell. You can directly run `/bin/bash` instead, if you want to start services manually.

See [Networking](#) for details about port mapping.

## Connecting to the Docker Shell

If you do not pass the `-d` flag to `docker run`, your terminal automatically attaches to the container.

A container dies when you exit the shell, but you can disconnect and leave the container running by typing `Ctrl+p` followed by `Ctrl+q`.

If you disconnect from the shell or passed the `-d` flag on startup, you can connect to the shell later using the following command:

```
docker attach [CONTAINER HASH]
```

You can look up the hashes of running containers using the following command:

```
docker ps
```

When attaching to a container, you might need to press **Enter** to see the shell prompt. To disconnect from the terminal without the container exiting, type `Ctrl+p` followed by `Ctrl+q`.

### Networking

To make a port accessible outside the container, pass the `-p <port>` flag. Docker maps this port to another port on the host system. You can look up the interface to which it binds and the port number it maps to using the following command:

```
docker port [CONTAINER HASH] [GUEST PORT]
```

To interact with the Cloudera QuickStart image from other systems, make sure `quickstart.cloudera` resolves to the IP address of the machine where the image is running. You might also want to set up port forwarding so that the port you would normally connect to on a real cluster is mapped to the corresponding port.

When you are mapping ports like this, services are not aware and might provide links or other references to specific ports that are no longer available on your client.

### Other Notes

The Cloudera stack is designed to run on a distributed cluster. Pausing and stopping a Docker image is like pausing an entire datacenter—some services might shut down because they seem to be out of touch with the rest of the cluster.

Cloudera Manager is not started by default. To see options for starting Cloudera Manager, run the following command:

```
/home/cloudera/cloudera-manager
```

See [Cloudera documentation](#) and the [Cloudera website](#) for other information, including the [license agreement](#) associated with the Docker image.



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### SPDX short identifier: Apache-2.0

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