

**cloudera<sup>®</sup>**

**Cloudera QuickStart VM**

## **Important Notice**

© 2010-2021 Cloudera, Inc. All rights reserved.

Cloudera, the Cloudera logo, and any other product or service names or slogans contained in this document are trademarks of Cloudera and its suppliers or licensors, and may not be copied, imitated or used, in whole or in part, without the prior written permission of Cloudera or the applicable trademark holder. If this documentation includes code, including but not limited to, code examples, Cloudera makes this available to you under the terms of the Apache License, Version 2.0, including any required notices. A copy of the Apache License Version 2.0, including any notices, is included herein. A copy of the Apache License Version 2.0 can also be found here: <https://opensource.org/licenses/Apache-2.0>

Hadoop and the Hadoop elephant logo are trademarks of the Apache Software Foundation. All other trademarks, registered trademarks, product names and company names or logos mentioned in this document are the property of their respective owners. Reference to any products, services, processes or other information, by trade name, trademark, manufacturer, supplier or otherwise does not constitute or imply endorsement, sponsorship or recommendation thereof by us.

Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of Cloudera.

Cloudera may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from Cloudera, the furnishing of this document does not give you any license to these patents, trademarks copyrights, or other intellectual property. For information about patents covering Cloudera products, see <http://tiny.cloudera.com/patents>.

The information in this document is subject to change without notice. Cloudera shall not be liable for any damages resulting from technical errors or omissions which may be present in this document, or from use of this document.

### **Cloudera, Inc.**

**395 Page Mill Road  
Palo Alto, CA 94306  
info@cloudera.com  
US: 1-888-789-1488  
Intl: 1-650-362-0488  
www.cloudera.com**

### **Release Information**

Version: Cloudera Enterprise 6.3.x  
Date: September 30, 2021

# Table of Contents

<b>QuickStart VM Software Versions and Documentation.....</b>	<b>4</b>
<b>QuickStart VM Administrative Information.....</b>	<b>5</b>
<b>Cloudera Docker Container.....</b>	<b>6</b>
Importing the Cloudera QuickStart Image.....	6
Running a Cloudera QuickStart Container.....	6
Connecting to the Docker Shell.....	7
Networking.....	8
Other Notes.....	8
<b>Appendix: Apache License, Version 2.0.....</b>	<b>9</b>

## 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 style="border: 1px solid #f08080; padding: 10px; margin-top: 10px;"> <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.

## Appendix: Apache License, Version 2.0

### SPDX short identifier: Apache-2.0

Apache License  
Version 2.0, January 2004  
<http://www.apache.org/licenses/>

#### TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

##### 1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

##### 2. Grant of Copyright License.

Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

##### 3. Grant of Patent License.

Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims

licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

#### 4. Redistribution.

You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

1. You must give any other recipients of the Work or Derivative Works a copy of this License; and
2. You must cause any modified files to carry prominent notices stating that You changed the files; and
3. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
4. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

#### 5. Submission of Contributions.

Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

#### 6. Trademarks.

This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

#### 7. Disclaimer of Warranty.

Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

#### 8. Limitation of Liability.

In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

#### 9. Accepting Warranty or Additional Liability.

While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

#### APPENDIX: How to apply the Apache License to your work

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

```
Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

    http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
```