Get Docker for CentOS

*Estimated reading time: 8 minutes*

To get started with Docker on CentOS, make sure you [meet the prerequisites](https://docs.docker.com/engine/installation/linux/centos/#prerequisites), then [install Docker](https://docs.docker.com/engine/installation/linux/centos/#install-docker).

Prerequisites

Docker EE customers

To install Docker Enterprise Edition (Docker EE), you need to know the Docker EE repository URL associated with your trial or subscription. To get this information:

* Go to <https://store.docker.com/?overlay=subscriptions>.
* Choose **Get Details** / **Setup Instructions** within the **Docker Enterprise Edition for CentOS** section.
* Copy the URL from the field labeled **Copy and paste this URL to download your Edition**.

Where the installation instructions differ for Docker EE and Docker CE, use this URL when you see the placeholder text <DOCKER-EE-URL>.

To learn more about Docker EE, see [Docker Enterprise Edition](https://www.docker.com/enterprise-edition/).

OS requirements

To install Docker, you need the 64-bit version of CentOS 7.

Uninstall old versions

Older versions of Docker were called docker or docker-engine. If these are installed, uninstall them, along with associated dependencies.

$ sudo yum remove docker \

docker-common \

container-selinux \

docker-selinux \

docker-engine

It’s OK if yum reports that none of these packages are installed.

The contents of /var/lib/docker/, including images, containers, volumes, and networks, are preserved. The Docker CE package is now called docker-ce, and the Docker EE package is now called docker-ee.

Install Docker

You can install Docker in different ways, depending on your needs:

* Most users [set up Docker’s repositories](https://docs.docker.com/engine/installation/linux/centos/#install-using-the-repository) and install from them, for ease of installation and upgrade tasks. This is the recommended approach.
* Some users download the RPM package and install it manually and manage upgrades completely manually. This is useful in situations such as installing Docker on air-gapped systems with no access to the internet.

Install using the repository

Before you install Docker for the first time on a new host machine, you need to set up the Docker repository. Afterward, you can install and update Docker from the repository.

Set up the repository

Repository set-up instructions are different for [Docker CE](https://docs.docker.com/engine/installation/linux/centos/#docker-ce) and [Docker EE](https://docs.docker.com/engine/installation/linux/centos/#docker-ee).

Docker CE

1. Install yum-utils, which provides the yum-config-manager utility:
2. $ sudo yum install -y yum-utils
3. Use the following command to set up the **stable** repository:
4. $ sudo yum-config-manager \
5. --add-repo \
6. https://download.docker.com/linux/centos/docker-ce.repo
7. **Optional**: Enable the **edge** repository. This repository is included in the docker.repo file above but is disabled by default. You can enable it alongside the stable repository.
8. $ sudo yum-config-manager --enable docker-ce-edge

You can disable the **edge** repository by running the yum-config-manager command with the --disable flag. To re-enable it, use the --enable flag. The following command disables the **edge** repository.

$ sudo yum-config-manager --disable docker-ce-edge

[Learn about **stable** and **edge** builds](https://docs.docker.com/engine/installation/).

Docker EE

1. Remove any existing Docker repositories from /etc/yum.repos.d/.
2. Store your Docker EE repository URL in a yum variable in /etc/yum/vars/. Replace <DOCKER-EE-URL> with the URL you noted down in the [prerequisites](https://docs.docker.com/engine/installation/linux/centos/#prerequisites).
3. $ sudo sh -c 'echo "<DOCKER-EE-URL>" > /etc/yum/vars/dockerurl'
4. Install yum-utils, which provides the yum-config-manager utility:
5. $ sudo yum install -y yum-utils
6. Use the following command to add the **stable** repository:
7. $ sudo yum-config-manager \
8. --add-repo \
9. <DOCKER-EE-URL>/docker-ee.repo

Install Docker

1. Update the yum package index.
2. $ sudo yum makecache fast

If this is the first time you have refreshed the package index since adding the Docker repositories, you will be prompted to accept the GPG key, and the key’s fingerprint will be shown. Verify that the fingerprint is correct, and if so, accept the key.

| **Docker Edition** | **Fingerprint** |
| --- | --- |
| Docker CE | 060A 61C5 1B55 8A7F 742B 77AA C52F EB6B 621E 9F35 |
| Docker EE | DD91 1E99 5A64 A202 E859 07D6 BC14 F10B 6D08 5F96 |

1. Install the latest version of Docker, or go to the next step to install a specific version.

| **Docker Edition** | **Command** |
| --- | --- |
| Docker CE | sudo yum install docker-ce |
| Docker EE | sudo yum install docker-ee |

1. **Warning**: If you have multiple Docker repositories enabled, installing or updating without specifying a version in the yum install or yum update command will always install the highest possible version, which may not be appropriate for your stability needs.
2. On production systems, you should install a specific version of Docker instead of always using the latest. List the available versions. This example uses the sort -r command to sort the results by version number, highest to lowest, and is truncated.

**Note**: This yum list command only shows binary packages. To show source packages as well, omit the .x86\_64 from the package name.

$ yum list docker-ce.x86\_64 --showduplicates |sort -r

docker-ce.x86\_64 17.03.0.el7 docker-ce-stable

The contents of the list depend upon which repositories are enabled, and will be specific to your version of CentOS (indicated by the .el7 suffix on the version, in this example). Choose a specific version to install. The second column is the version string. The third column is the repository name, which indicates which repository the package is from and by extension its stability level. To install a specific version, append the version string to the package name and separate them by a hyphen (-):

| **Docker Edition** | **Command** |
| --- | --- |
| Docker CE | sudo yum install docker-ce-<VERSION> |
| Docker EE | sudo yum install docker-ee-<VERSION> |

1. Start Docker.
2. $ sudo systemctl start docker
3. Verify that docker is installed correctly by running the hello-world image.
4. $ sudo docker run hello-world

This command downloads a test image and runs it in a container. When the container runs, it prints an informational message and exits.

Docker is installed and running. You need to use sudo to run Docker commands. Continue to [Linux postinstall](https://docs.docker.com/engine/installation/linux/linux-postinstall/) to allow non-privileged users to run Docker commands and for other optional configuration steps.

Upgrade Docker

To upgrade Docker, first run sudo yum makecache fast, then follow the [installation instructions](https://docs.docker.com/engine/installation/linux/centos/#install-docker), choosing the new version you want to install.

Install from a package

If you cannot use Docker’s repository to install Docker, you can download the .rpm file for your release and install it manually. You will need to download a new file each time you want to upgrade Docker.

1. This step is different for Docker CE and Docker EE.
   * **Docker CE**: Go to <https://download.docker.com/linux/centos/7/x86_64/stable/Packages/> and download the .rpm file for the Docker version you want to install.

**Note**: To install an **edge** package, change the word stable in the > URL to edge. For information about **stable** and **edge** builds, see [Docker variants](https://docs.docker.com/engine/installation/#docker-variants).

* + **Docker EE**: Go to the Docker EE repository URL associated with your trial or subscription in your browser. Go to 7/x86\_64/stable-17.03/Packages/ and download the .rpm file for the Docker version you want to install.

1. Install Docker, changing the path below to the path where you downloaded the Docker package.
2. $ sudo yum install /path/to/package.rpm
3. Start Docker.
4. $ sudo systemctl start docker
5. Verify that docker is installed correctly by running the hello-world image.
6. $ sudo docker run hello-world

This command downloads a test image and runs it in a container. When the container runs, it prints an informational message and exits.

Docker is installed and running. You need to use sudo to run Docker commands. Continue to [Post-installation steps for Linux](https://docs.docker.com/engine/installation/linux/linux-postinstall/) to allow non-privileged users to run Docker commands and for other optional configuration steps.

Upgrade Docker

To upgrade Docker, download the newer package file and repeat the [installation procedure](https://docs.docker.com/engine/installation/linux/centos/#install-from-a-package), using yum -y upgrade instead of yum -y install, and pointing to the new file.

Uninstall Docker

1. Uninstall the Docker package:

| **Docker Edition** | **Command** |
| --- | --- |
| Docker CE | sudo yum remove docker-ce |
| Docker EE | sudo yum remove docker-ee |

1. Images, containers, volumes, or customized configuration files on your host are not automatically removed. To delete all images, containers, and volumes:
2. $ sudo rm -rf /var/lib/docker

You must delete any edited configuration files manually.