

Docker installation on CENTOS 9

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

- Command:-

```
sudo yum remove docker \
    docker-client \
    docker-client-latest \
    docker-common \
    docker-latest \
    docker-latest-logrotate \
    docker-logrotate \
    docker-engine
```

```
[root@localhost yum.repos.d]# sudo yum remove docker \
> docker-client \
> docker-client-latest \
> docker-common \
> docker-latest \
> docker-latest-logrotate \
> docker-logrotate \
> docker-engine
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use subscription-manager to register.

Repository 'dvd1' is missing name in configuration, using id.
Repository 'dvd2' is missing name in configuration, using id.
No match for argument: docker
No match for argument: docker-client
No match for argument: docker-client-latest
No match for argument: docker-common
No match for argument: docker-latest
No match for argument: docker-latest-logrotate
No match for argument: docker-logrotate
No match for argument: docker-engine
No packages marked for removal.
Dependencies resolved.
Nothing to do.
Complete!
[root@localhost yum.repos.d]#
```

- Setup the repository

- Command:- **yum install -y yum-utils**

```
[root@localhost yum.repos.d]# sudo yum install -y yum-utils
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use subscription-manager to register.

Repository 'dvd1' is missing name in configuration, using id.
Repository 'dvd2' is missing name in configuration, using id.
Last metadata expiration check: 1:57:54 ago on Thursday 03 November 2022 09:55:10 PM.
Package yum-utils-4.1.0-2.el9.noarch is already installed.
Dependencies resolved.
Nothing to do.
Complete!
```

- Command : -

**yum-config-manager **

**--add-repo **

https://download.docker.com/linux/centos/docker-ce.repo

```

[complete]
[root@localhost yum.repos.d]# sudo yum-config-manager \
> --add-repo \
> https://download.docker.com/linux/centos/docker-ce.repo
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use subscription-manager to register.

Repository 'dvd1' is missing name in configuration, using id.
Repository 'dvd2' is missing name in configuration, using id.
Adding repo from: https://download.docker.com/linux/centos/docker-ce.repo

```

- Install the Docker engine

- Command:- **yum install docker-ce docker-ce-cli containerd.io docker-compose-plugin**

```

[root@localhost yum.repos.d]# sudo yum install docker-ce docker-ce-cli containerd.io docker-compose-plugin
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use subscription-manager to register.

Repository 'dvd1' is missing name in configuration, using id.
Repository 'dvd2' is missing name in configuration, using id.
Docker CE Stable - x86_64                                1.7 kB/s | 12 kB      00:07
Dependencies resolved.
=====
Package                                Architecture      Version            Repository          Size
=====
Installing:
containerd.io                          x86_64            1.6.9-3.1.el9     docker-ce-stable   32
docker-ce                              x86_64            3:20.10.21-3.el9  docker-ce-stable   21
docker-ce-cli                          x86_64            1:20.10.21-3.el9  docker-ce-stable   29
docker-compose-plugin                  x86_64            2.12.2-3.el9      docker-ce-stable   10
Installing dependencies:
container-selinux                      noarch            3:2.189.0-1.el9   dvd2                53
docker-ce-rootless-extras             x86_64            20.10.21-3.el9    docker-ce-stable   3.7
fuse-overlayfs                         x86_64            1.9-1.el9         dvd2                74
slirp4netns                           x86_64            1.2.0-2.el9       dvd2                49
Installing weak dependencies:
docker-scan-plugin                     x86_64            0.21.0-3.el9      docker-ce-stable   3.8
=====
Transaction Summary
=====
Install  9 Packages

```

- Command :- **yum list docker-ce --showduplicates | sort -r**

```

[root@localhost yum.repos.d]# yum list docker-ce --showduplicates | sort -r
Repository 'dvd1' is missing name in configuration, using id.
Repository 'dvd2' is missing name in configuration, using id.
Updating Subscription Management repositories.
Unable to read consumer identity
This system is not registered with an entitlement server. You can use subscription-manager to register.
Last metadata expiration check: 0:21:33 ago on Thursday 03 November 2022 11:53:34 PM.
Installed Packages
docker-ce.x86_64          3:20.10.21-3.el9     docker-ce-stable
docker-ce.x86_64          3:20.10.21-3.el9     @docker-ce-stable
docker-ce.x86_64          3:20.10.20-3.el9     docker-ce-stable
docker-ce.x86_64          3:20.10.19-3.el9     docker-ce-stable
docker-ce.x86_64          3:20.10.18-3.el9     docker-ce-stable
docker-ce.x86_64          3:20.10.17-3.el9     docker-ce-stable
docker-ce.x86_64          3:20.10.16-3.el9     docker-ce-stable
docker-ce.x86_64          3:20.10.15-3.el9     docker-ce-stable
Available Packages

```

- Install a specific version by its fully qualified package name, which is the package name (docker-ce) plus the version string (2nd column) starting at the first colon (:), up to the first hyphen, separated by a hyphen (-).
- For example, docker-ce-18.09.1.
- Command :-

yum install docker-ce-20.10.21 docker-ce-cli-20.10.21 containerd.io docker-compose-plugin

```
[root@localhost yum.repos.d]# yum install docker-ce-20.10.21 docker-ce-cli-20.10.21 containerd.io docker-compose-plugin
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use subscription-manager to register.

Repository 'dvd1' is missing name in configuration, using id.
Repository 'dvd2' is missing name in configuration, using id.
Last metadata expiration check: 0:05:09 ago on Friday 04 November 2022 12:54:11 AM.
Dependencies resolved.
=====
Package                                Architecture    Version          Repository        Size
=====
Installing:
containerd.io                          x86_64          1.6.9-3.1.el9    docker-ce-stable 32 M
docker-ce                              x86_64          3:20.10.21-3.el9 docker-ce-stable 21 M
docker-ce-cli                          x86_64          1:20.10.21-3.el9 docker-ce-stable 29 M
docker-compose-plugin                  x86_64          2.12.2-3.el9     docker-ce-stable 10 M
Installing dependencies:
docker-ce-rootless-extras              x86_64          20.10.21-3.el9   docker-ce-stable 3.7 M
=====
Transaction Summary
=====
Install 5 Packages

Total download size: 95 M
Installed size: 381 M
Is this ok [y/N]:
```

- **Starting Docker services**
- Command :- **systemctl start docker**

```
[root@localhost yum.repos.d]# systemctl start docker
[root@localhost yum.repos.d]# systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; disabled; vendor preset: disabled)
   Active: active (running) since Fri 2022-11-04 01:03:19 IST; 31s ago
 TriggeredBy: ● docker.socket
    Docs: https://docs.docker.com
   Main PID: 5568 (dockerd)
     Tasks: 8
    Memory: 27.4M
      CPU: 272ms
   CGroup: /system.slice/docker.service
           └─5568 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Nov 04 01:03:18 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:18.133485061+05:30" level=info msg="Loadi
Nov 04 01:03:18 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:18.153844332+05:30" level=info msg="Firev
Nov 04 01:03:18 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:18.818218745+05:30" level=info msg="Defau
Nov 04 01:03:18 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:18.912384668+05:30" level=info msg="Firev
Nov 04 01:03:18 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:18.978224622+05:30" level=info msg="Firev
Nov 04 01:03:19 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:19.287931676+05:30" level=info msg="Loadi
Nov 04 01:03:19 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:19.325833137+05:30" level=info msg="Docke
Nov 04 01:03:19 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:19.326018601+05:30" level=info msg="Daemo
Nov 04 01:03:19 localhost.localdomain systemd[1]: Started Docker Application Container Engine.
Nov 04 01:03:19 localhost.localdomain dockerd[5568]: time="2022-11-04T01:03:19.425851062+05:30" level=info msg="API
```

- Testing

Command: **docker run hello-world**

```
[root@localhost ~]# docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
```

Hello from Docker!

This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:

1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
(amd64)
3. The Docker daemon created a new container from that image which runs the executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it to your terminal.

To try something more ambitious, you can run an Ubuntu container with:

```
$ docker run -it ubuntu bash
```

Share images, automate workflows, and more with a free Docker ID:

<https://hub.docker.com/>

For more examples and ideas, visit:

<https://docs.docker.com/get-started/>

Important Link

<https://docs.docker.com/engine/install/centos/>