

Docker : Install Docker on Oracle Linux 8 (OL8) on OCI Compute VM

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This Document demonstrates how to install Docker on Oracle Linux 8 (OL8). RHEL8, and therefore OL8, have switched their focus from Docker for containers, so this installation uses the Docker CE installation from the Docker.

Assumptions

You have a server (physical or virtual) with Oracle Linux 8 (OL8) installed.

You have a separate partition to hold the images and containers. In this document we have a separate virtual disk.

Install Docker

Enable all the required repositories. To do this you are going to need the yum-utils package.

```
#dnf install -y dnf-utils zip unzip
```

```
#dnf config-manager --add-repo=https://download.docker.com/linux/centos/docker-ce.repo
```

Install Docker.

```
# dnf remove -y runc
```

```
# dnf install -y docker-ce --nobest
```

Configure Disk (Optional)

By default, the containers are created under the "/var/lib/docker", so, you need to place this on a separate disk or in a separate partition.

We have a second LUN with a device named "/dev/sdb". I could build the file system on this disk directly, but I prefer to partition the disks with a single partition using fdisk

```
MOUNT_POINT=/var/lib/docker
```

```
DISK_DEVICE=/dev/sdb
```

```
# New partition for the whole disk.
```

```
echo -e "n\np\n1\n\n\nw" | fdisk ${DISK_DEVICE}
```

```
# Add file system.
```

```
mkfs.xfs -f ${DISK_DEVICE}1
```

```
# Mount it using the UUID of the VirtualBox virtual disk.
```

```
# rm -Rf /var/lib/docker
```

```
# mkdir /var/lib/docker
```

```
UUID=$(blkid -o export ${DISK_DEVICE}1 | grep UUID | grep -v PARTUUID)
```

```
mkdir ${MOUNT_POINT}
```

```
echo "${UUID} ${MOUNT_POINT} xfs defaults 1 2" >> /etc/fstab
```

```
mount ${MOUNT_POINT}
```

Finish Docker Setup

Enable and start the Docker service.

```
# systemctl enable docker.service
```

```
# systemctl start docker.service
```

You can get information about docker using the following commands.

```
# systemctl status docker.service
```

```
# docker info
```

```
# docker version
```

Docker Commands as Non-Root User

Docker commands run as the "root" user. You have three choices when it comes to running docker commands.

- Run the docker commands from the root user.
- Allow another user to perform "sudo" on the docker command, so all commands are run using "sudo docker ...".
- Create a group called docker and assign that to the user you want to run docker commands from. The documentation says, "Warning: The docker group grants privileges equivalent to the root user", so we should avoid this.

In this case we want to run the docker commands from a user called "docker_user", so we add an entry in the "/etc/sudoers" file and use an alias in the user's ".bash_profile" file so we don't have to keep typing the "sudo" command.

```
# useradd docker_user
# echo "docker_user ALL=(ALL) NOPASSWD: /usr/bin/docker" >> /etc/sudoers
# echo "alias docker=\"sudo /usr/bin/docker\"" >> /home/docker_user/.bash_profile
# su - docker_user
```


\$ docker ps

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
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