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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

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Docker Commands as Non-Root User

Docker commands run as the "root" user. You have three choices when if 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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