



```
[root@server1 ~]# yum install -y yum-utils device-mapper-persistent-data lvm2
```

```
[root@server1 ~]# yum-config-manager --add-repo \  
https://download.docker.com/linux/centos/docker-ce.repo
```

```
[root@server1 ~]# yum-config-manager --enable docker-ce-edge
```

```
[root@server1 ~]# yum update  
Complementos cargados:fastestmirror  
Loading mirror speeds from cached hostfile  
* base: mirror.airenetworks.es  
* extras: mirror.airenetworks.es  
* updates: mirror.airenetworks.es  
docker-ce-edge  
| 2.9 kB 00:00:00  
docker-ce-stable  
| 2.9 kB 00:00:00  
docker-ce-edge/x86_64/primary_db  
| 17 kB 00:00:01  
No packages marked for update
```

```
[root@server1 ~]# yum list docker-ce --showduplicates | sort -r  
* updates: mirror.airenetworks.es  
Paquetes disponibles  
Loading mirror speeds from cached hostfile  
* extras: mirror.airenetworks.es  
docker-ce.x86_64 18.05.0.ce-3.el7.centos docker-ce-edge  
docker-ce.x86_64 18.04.0.ce-3.el7.centos docker-ce-edge  
docker-ce.x86_64 18.03.1.ce-1.el7.centos docker-ce-stable  
docker-ce.x86_64 18.03.1.ce-1.el7.centos docker-ce-edge  
docker-ce.x86_64 18.03.0.ce-1.el7.centos docker-ce-stable  
docker-ce.x86_64 18.03.0.ce-1.el7.centos docker-ce-edge  
docker-ce.x86_64 18.02.0.ce-1.el7.centos docker-ce-edge  
docker-ce.x86_64 18.01.0.ce-1.el7.centos docker-ce-edge  
...  
docker-ce.x86_64 17.03.1.ce-1.el7.centos docker-ce-stable  
docker-ce.x86_64 17.03.0.ce-1.el7.centos docker-ce-stable  
Complementos cargados:fastestmirror  
* base: mirror.airenetworks.es
```

```
[root@server1 ~]# yum-config-manager --disable docker-ce-edge  
[root@server1 ~]# yum update
```

```
[root@server1 ~]# yum install docker-ce-selinux.noarch  
[root@server1 ~]# yum install setroubleshoot
```

```
[root@server1 ~]# systemctl enable --now docker.service  
Created symlink from /etc/systemd/system/multi-user.target.wants/docker.service to  
/usr/lib/systemd/system/docker.service.
```

```
[root@server1 ~]# systemctl status docker.service  
● docker.service - Docker Application Container Engine  
Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor preset:  
disabled)  
Active: active (running) since mié 2018-05-30 08:27:19 CEST; 2min 2s ago  
Docs: https://docs.docker.com  
Main PID: 11106 (dockerd)  
Tasks: 21
```



```
docker
  Memory: 42.6M
  CGroup: /system.slice/docker.service
          └─11106 /usr/bin/dockerd
             └─11113 docker-containerd --config
/var/run/docker/containerd/containerd.toml
```

```
may 30 08:27:18 server1.example.com dockerd[11106]: time="2018-05-30T08:27:18+02:00" level=info msg=serving...
address="/var/run/docker/containerd/docker-containerd.sock"
module="containerd/grpc"
may 30 08:27:18 server1.example.com dockerd[11106]: time="2018-05-30T08:27:18+02:00" level=info msg="containerd successfully booted in 0.010705s"
module=containerd
may 30 08:27:18 server1.example.com dockerd[11106]: time="2018-05-30T08:27:18.508022618+02:00" level=info msg="Graph migration to content-addressability took 0.00 seconds"
may 30 08:27:18 server1.example.com dockerd[11106]: time="2018-05-30T08:27:18.509944430+02:00" level=info msg="Loading containers: start."
may 30 08:27:18 server1.example.com dockerd[11106]: time="2018-05-30T08:27:18.960498276+02:00" level=info msg="Default bridge (docker0) is assigned with an IP address 172.17.0.0/16. Daemon option...d IP address"
may 30 08:27:19 server1.example.com dockerd[11106]: time="2018-05-30T08:27:19.193443073+02:00" level=info msg="Loading containers: done."
may 30 08:27:19 server1.example.com dockerd[11106]: time="2018-05-30T08:27:19.210997555+02:00" level=info msg="Docker daemon" commit=9ee9f40
graphdriver(s)=overlay2 version=18.03.1-ce
may 30 08:27:19 server1.example.com dockerd[11106]: time="2018-05-30T08:27:19.211309966+02:00" level=info msg="Daemon has completed initialization"
may 30 08:27:19 server1.example.com dockerd[11106]: time="2018-05-30T08:27:19.219782274+02:00" level=info msg="API listen on /var/run/docker.sock"
may 30 08:27:19 server1.example.com systemd[1]: Started Docker Application Container Engine.
Hint: Some lines were ellipsized, use -l to show in full.
```

```
[root@server1 ~]# systemctl cat docker.service
```

```
# /usr/lib/systemd/system/docker.service
```

```
[Unit]
```

```
Description=Docker Application Container Engine
```

```
Documentation=https://docs.docker.com
```

```
After=network-online.target firewalld.service
```

```
Wants=network-online.target
```

```
[Service]
```

```
Type=notify
```

```
# the default is not to use systemd for cgroups because the delegate issues still
```

```
# exists and systemd currently does not support the cgroup feature set required
```

```
# for containers run by docker
```

```
ExecStart=/usr/bin/dockerd
```

```
ExecReload=/bin/kill -s HUP $MAINPID
```

```
# Having non-zero Limit*s causes performance problems due to accounting overhead
```

```
# in the kernel. We recommend using cgroups to do container-local accounting.
```

```
LimitNOFILE=infinity
```

```
LimitNPROC=infinity
```

```
LimitCORE=infinity
```

```
# Uncomment TasksMax if your systemd version supports it.
```

```
# Only systemd 226 and above support this version.
```

```
#TasksMax=infinity
```

```
TimeoutStartSec=0
```

```
# set delegate yes so that systemd does not reset the cgroups of docker containers
```

```
Delegate=yes
```



```
docker
# kill only the docker process, not all processes in the cgroup
KillMode=process
# restart the docker process if it exits prematurely
Restart=on-failure
StartLimitBurst=3
StartLimitInterval=60s
```

[Install]

```
WantedBy=multi-user.target
```

```
[root@server1 ~]# yum install epel-release
[root@server1 ~]# yum install -y python-pip
[root@server1 ~]# pip install docker-compose
[root@server1 ~]# pip install --upgrade pip
[root@server1 ~]# pip -V
pip 10.0.1 from /usr/lib/python2.7/site-packages/pip (python 2.7)
```

```
[root@server1 ~]# docker volume create portainer_data
portainer_data
[root@server1 ~]# docker volume ls
DRIVER          VOLUME NAME
local           portainer_data
[root@server1 ~]# docker run -d --name carlos_portainer --restart unless-stopped
-p 9000:9000 -v /var/run/docker.sock:/var/run/docker.sock -v portainer_data:/data
portainer/portainer
Unable to find image 'portainer/portainer:latest' locally
latest: Pulling from portainer/portainer
d1e017099d17: Pull complete
0d90a7ef0797: Pull complete
Digest: sha256:2933caa6e578e94b5d91429ea7f47ae9741ee11b71d7cb740e76c5f234cc1d87
Status: Downloaded newer image for portainer/portainer:latest
a2aa3db56129e6a2c820e9446870ff15ac4db8d7449fecbd0dbb6f5eb94f2cda
```

```
[root@server1 ~]# docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED
STATUS            PORTS              NAMES
a2aa3db56129      portainer/portainer  "/portainer"       33 seconds ago
Up 31 seconds     0.0.0.0:9000->9000/tcp  modest_fermat
[root@server1 ~]# docker rename modest_fermat carlos_portainer
[root@server1 ~]# docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED
STATUS            PORTS              NAMES
a2aa3db56129      portainer/portainer  "/portainer"       About a minute ago
Up About a minute  0.0.0.0:9000->9000/tcp  carlos_portainer
```

```
[root@server1 ~]# ip a show docker0
4: docker0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP
group default
    link/ether 02:42:ab:f3:4d:da brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
        valid_lft forever preferred_lft forever
    inet6 fe80::42:abff:fef3:4dda/64 scope link
        valid_lft forever preferred_lft forever
```

↳ Ruta Anfitrión ipv4 -temporal-

```
hp_redhat # ip route add 172.17.0.0/24 dev eno1
```

```
hp_redhat # ip route
default via 192.168.1.1 dev eno1 proto static metric 100
```

```
172.17.0.0/24 dev eno1 scope link
192.168.1.0/24 dev eno1 proto kernel scope link src 192.168.1.250 metric 100
192.168.122.0/24 dev virbr0 proto kernel scope link src 192.168.122.1
```

↳ Ruta Anfitrión ipv4 -definitiva-

```
hp redhat # nmcli connection modify eno1 ipv4.routes 172.17.0.0/24
```

```
hp redhat # nmcli connection down eno1
```

La conexión 'eno1' fue desactivada correctamente (ruta activa D-Bus: /org/freedesktop/NetworkManager/ActiveConnection/4)

```
hp redhat # nmcli connection up eno1
```

Conexión activada con éxito (D-Bus active path: /org/freedesktop/NetworkManager/ActiveConnection/5)

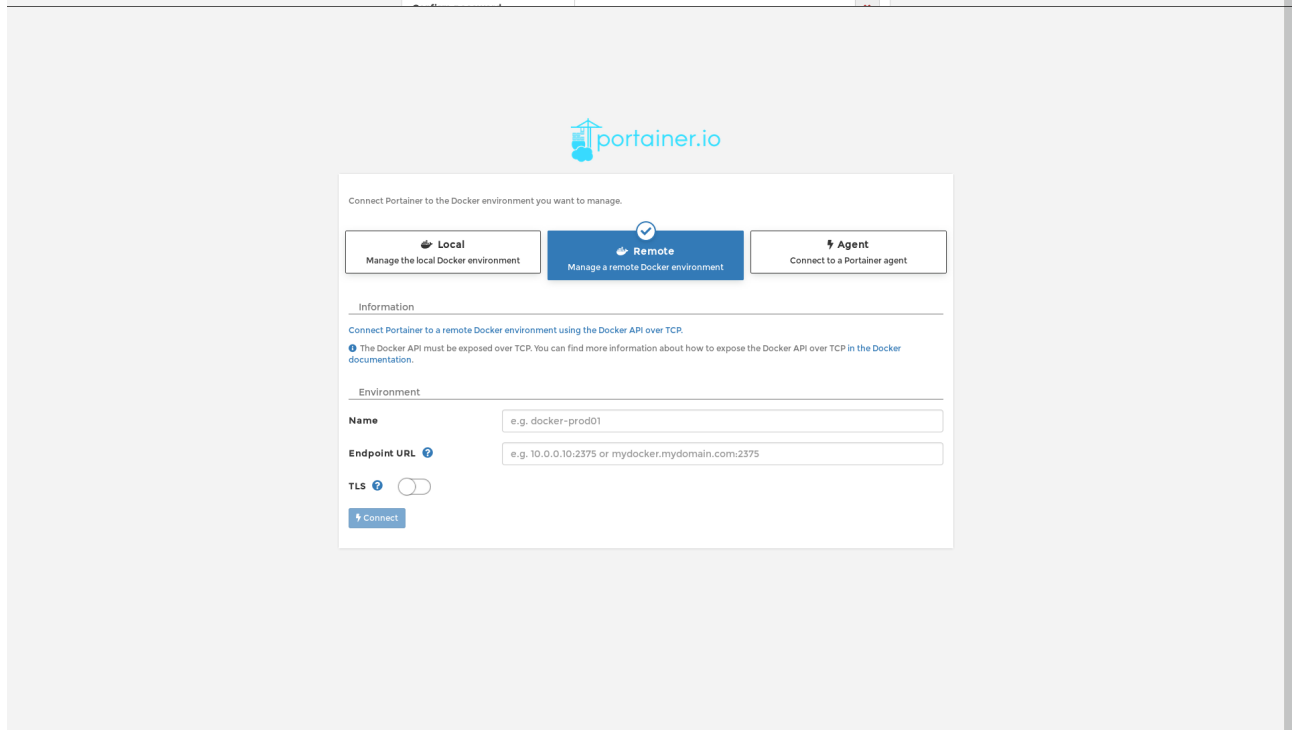
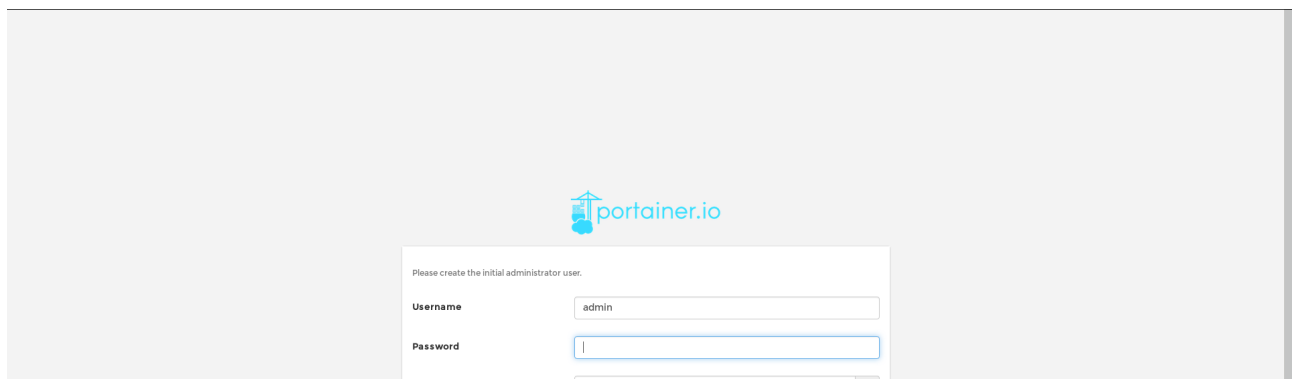
```
hp redhat # ip route
```

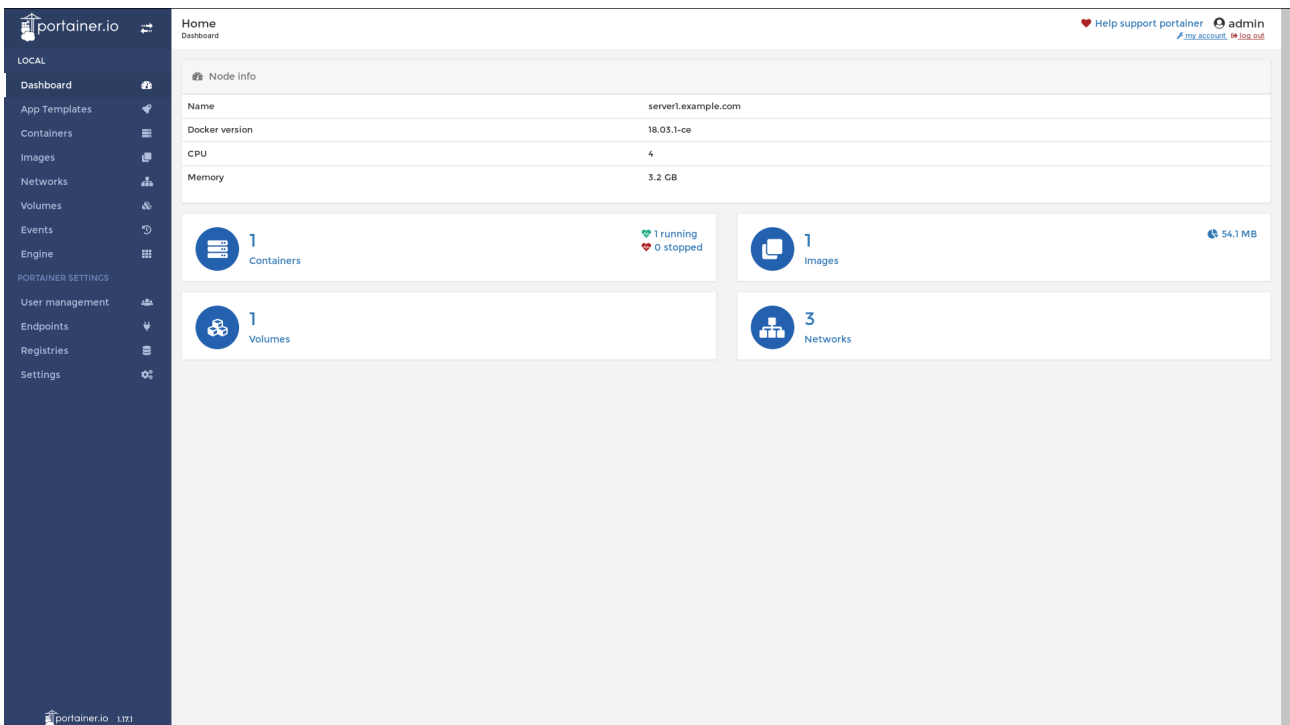
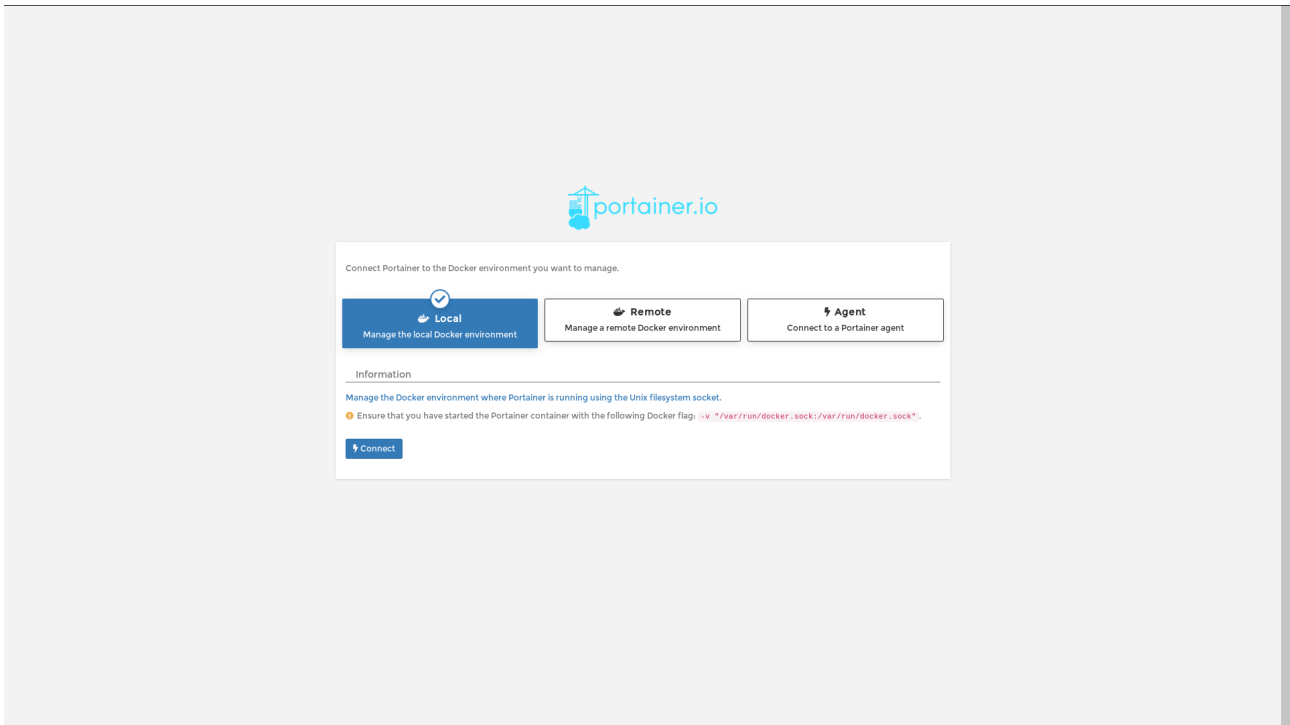
```
default via 192.168.1.1 dev eno1 proto static metric 100
172.17.0.0/24 dev eno1 proto static scope link metric 100
192.168.1.0/24 dev eno1 proto kernel scope link src 192.168.1.250 metric 100
192.168.122.0/24 dev virbr0 proto kernel scope link src 192.168.122.1
```

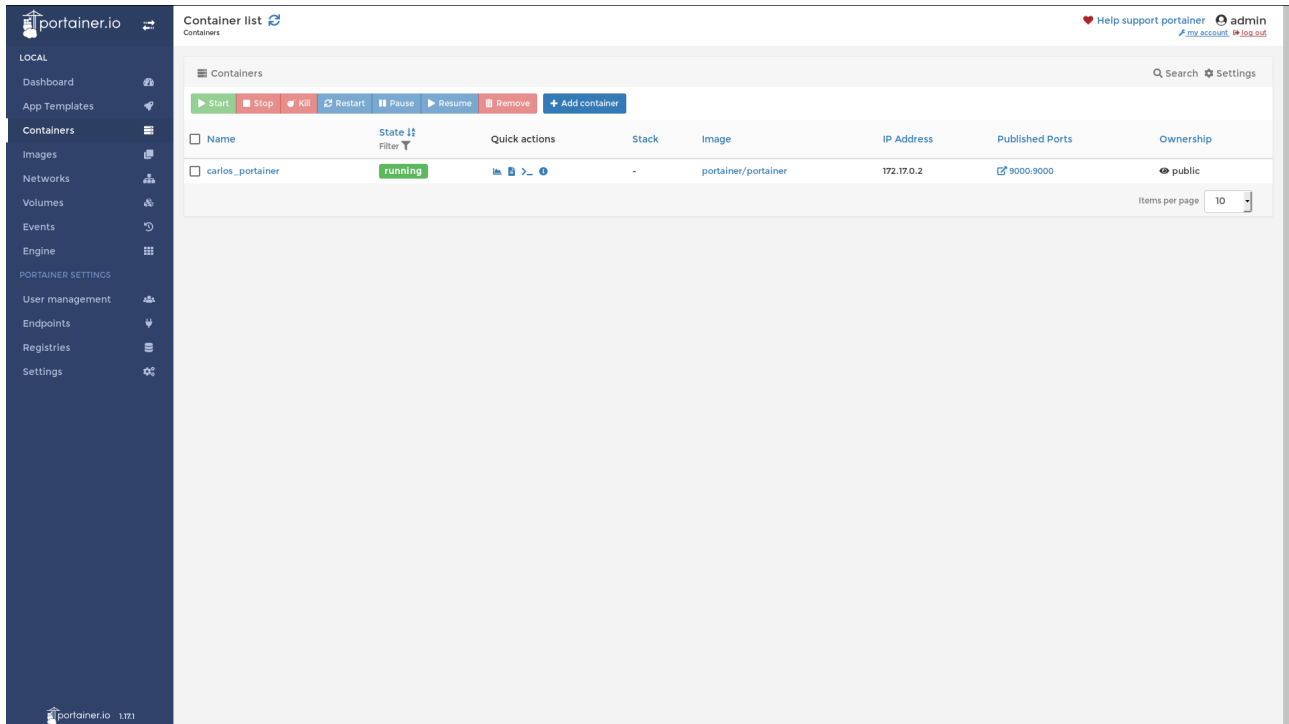
```
hp redhat # cat /etc/sysconfig/network-scripts/route-eno1
```

```
ADDRESS0=172.17.0.0
NETMASK0=255.255.255.0
```

<http://172.17.0.1:9000>







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