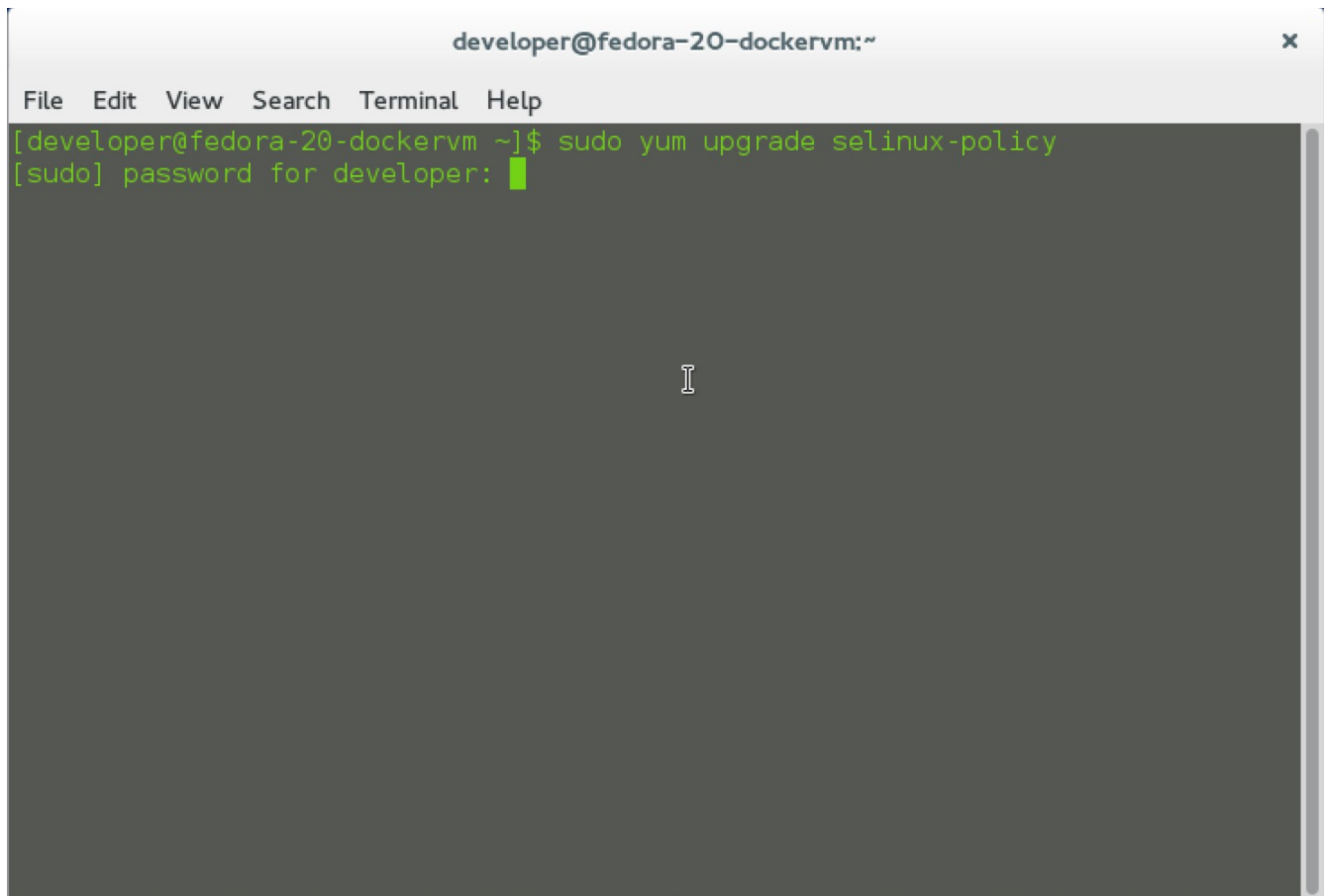


# Installing Docker on Fedora 20

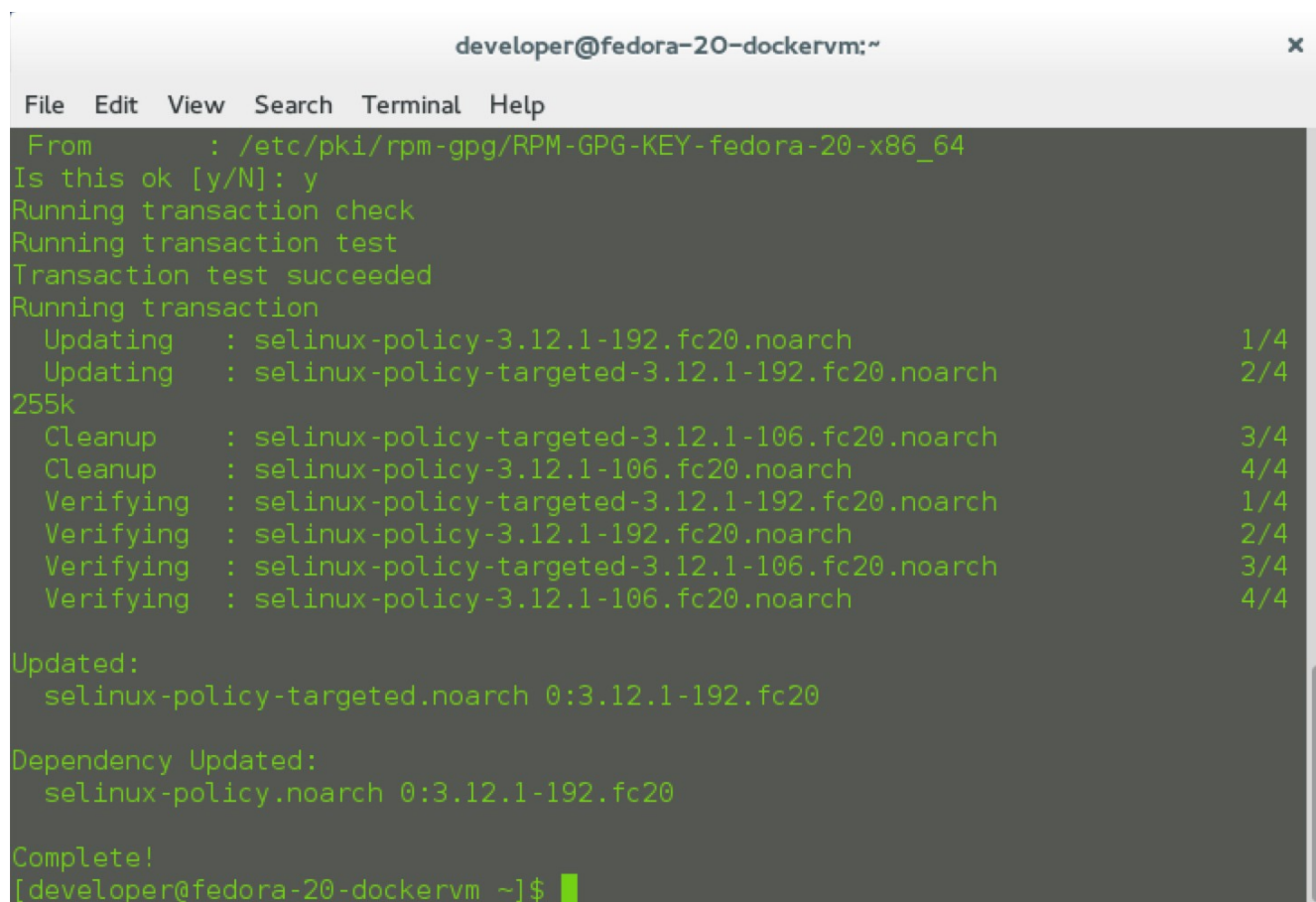
## Preparing to Install Docker

First you need to ensure your `selinux-policy` is up to date. Run `sudo yum upgrade selinux-policy` in the terminal to do so. Beware this upgrade takes a while to run and at times may appear to be “hung.”



```
developer@fedora-20-dockervm:~  
File Edit View Search Terminal Help  
[developer@fedora-20-dockervm ~]$ sudo yum upgrade selinux-policy  
[sudo] password for developer: █  
  
█
```

You'll be notified when the upgrade is complete:

A terminal window titled 'developer@fedora-20-dockervm:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal output shows the upgrade of selinux-policy. It starts with a file location, a confirmation prompt, transaction checks, and a list of packages being updated, cleaned up, and verified with progress indicators. The process concludes with a 'Complete!' message and the prompt '[developer@fedora-20-dockervm ~]\$' with a green cursor.

```
developer@fedora-20-dockervm:~
File Edit View Search Terminal Help
From      : /etc/pki/rpm-gpg/RPM-GPG-KEY-fedora-20-x86_64
Is this ok [y/N]: y
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Updating      : selinux-policy-3.12.1-192.fc20.noarch                1/4
  Updating      : selinux-policy-targeted-3.12.1-192.fc20.noarch       2/4
255k
  Cleanup       : selinux-policy-targeted-3.12.1-106.fc20.noarch       3/4
  Cleanup       : selinux-policy-3.12.1-106.fc20.noarch               4/4
  Verifying     : selinux-policy-targeted-3.12.1-192.fc20.noarch       1/4
  Verifying     : selinux-policy-3.12.1-192.fc20.noarch               2/4
  Verifying     : selinux-policy-targeted-3.12.1-106.fc20.noarch       3/4
  Verifying     : selinux-policy-3.12.1-106.fc20.noarch               4/4

Updated:
  selinux-policy-targeted.noarch 0:3.12.1-192.fc20

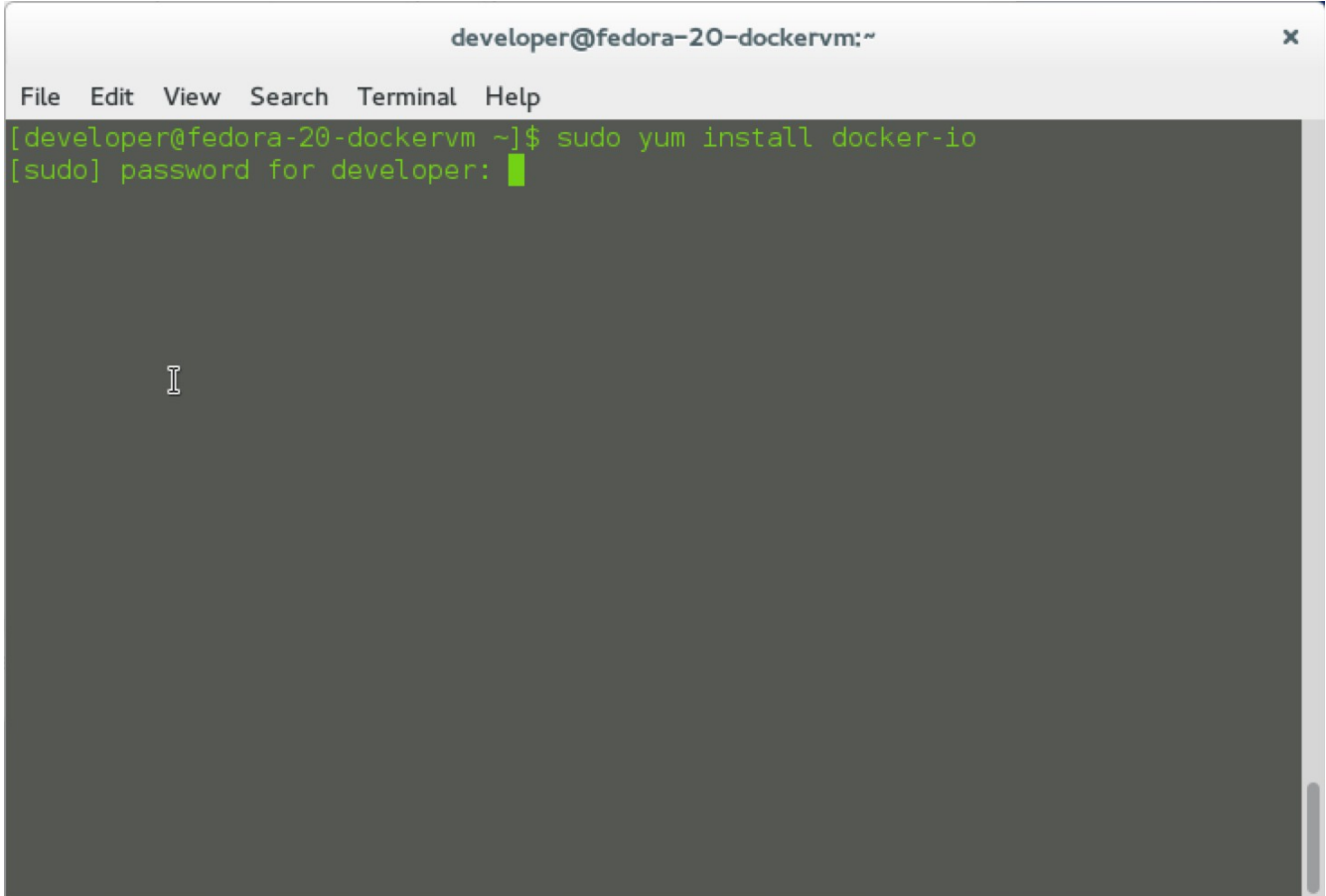
Dependency Updated:
  selinux-policy.noarch 0:3.12.1-192.fc20

Complete!
[developer@fedora-20-dockervm ~]$
```

Restart your system before proceeding.

# Install Docker

This is as simple as running `sudo yum install docker-io` in the terminal:

A terminal window titled "developer@fedora-20-dockervm:~" with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the command `sudo yum install docker-io` being executed. The prompt changes to `[sudo]` and asks for the password for the user "developer". A green cursor is visible after the prompt.

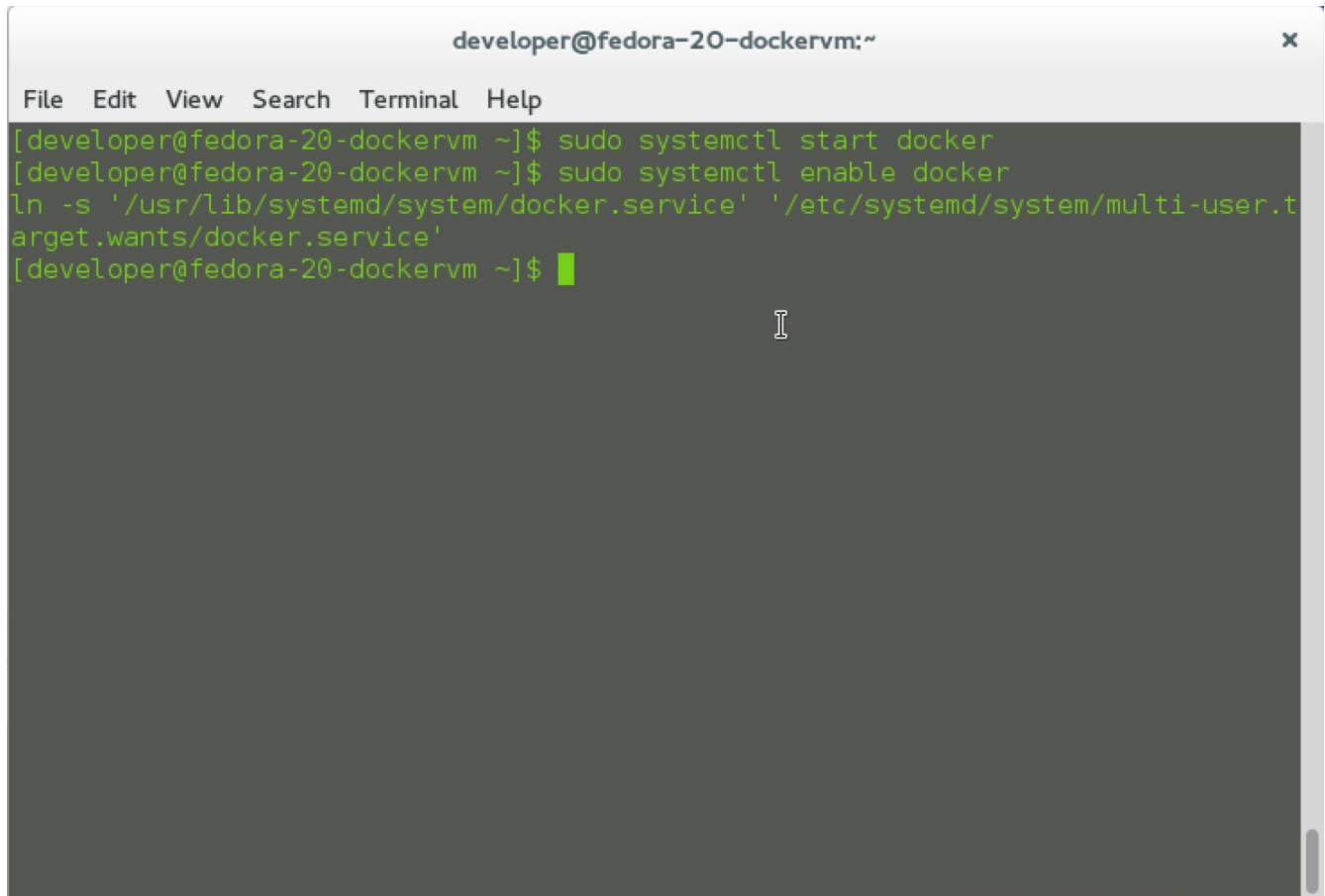
```
developer@fedora-20-dockervm:~  
File Edit View Search Terminal Help  
[developer@fedora-20-dockervm ~]$ sudo yum install docker-io  
[sudo] password for developer: █
```

When all is done the installation will say it's complete:

```
developer@fedora-20-dockervm:~  
File Edit View Search Terminal Help  
Verifying : device-mapper-libs-1.02.82-3.fc20.x86_64 23/25  
Verifying : device-mapper-1.02.82-3.fc20.x86_64 24/25  
Verifying : systemd-python-208-9.fc20.x86_64 25/25  
  
Installed:  
  docker-io.x86_64 0:1.3.0-1.fc20  
  
Updated:  
  lvm2.x86_64 0:2.02.106-1.fc20          systemd.x86_64 0:208-26.fc20  
  
Dependency Updated:  
  device-mapper.x86_64 0:1.02.85-1.fc20  
  device-mapper-event.x86_64 0:1.02.85-1.fc20  
  device-mapper-event-libs.x86_64 0:1.02.85-1.fc20  
  device-mapper-libs.x86_64 0:1.02.85-1.fc20  
  libgudev1.x86_64 0:208-26.fc20  
  libgudev1-devel.x86_64 0:208-26.fc20  
  lvm2-libs.x86_64 0:2.02.106-1.fc20  
  systemd-devel.x86_64 0:208-26.fc20  
  systemd-libs.x86_64 0:208-26.fc20  
  systemd-python.x86_64 0:208-26.fc20  
  
Complete!  
[developer@fedora-20-dockervm ~]$
```

## Start the Docker Service

There's a couple of things you need to do here. One is to get the Docker daemon running and the other is to ensure the Docker daemon is running when you restart. Run `sudo systemctl start docker` to start the Docker daemon. Then run `sudo systemctl enable docker` to ensure the Docker daemon is running when you restart your system.

A terminal window titled 'developer@fedora-20-dockervm:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
[developer@fedora-20-dockervm ~]$ sudo systemctl start docker
[developer@fedora-20-dockervm ~]$ sudo systemctl enable docker
ln -s '/usr/lib/systemd/system/docker.service' '/etc/systemd/system/multi-user.target.wants/docker.service'
[developer@fedora-20-dockervm ~]$
```

## Docker User Configuration

All Docker commands must be run as root by default, meaning you must continually use `sudo` to run Docker commands. This can be changed by adding yourself, in this example `developer`, to the `docker` group like so:

```
$ sudo usermod -a -G docker developer
```

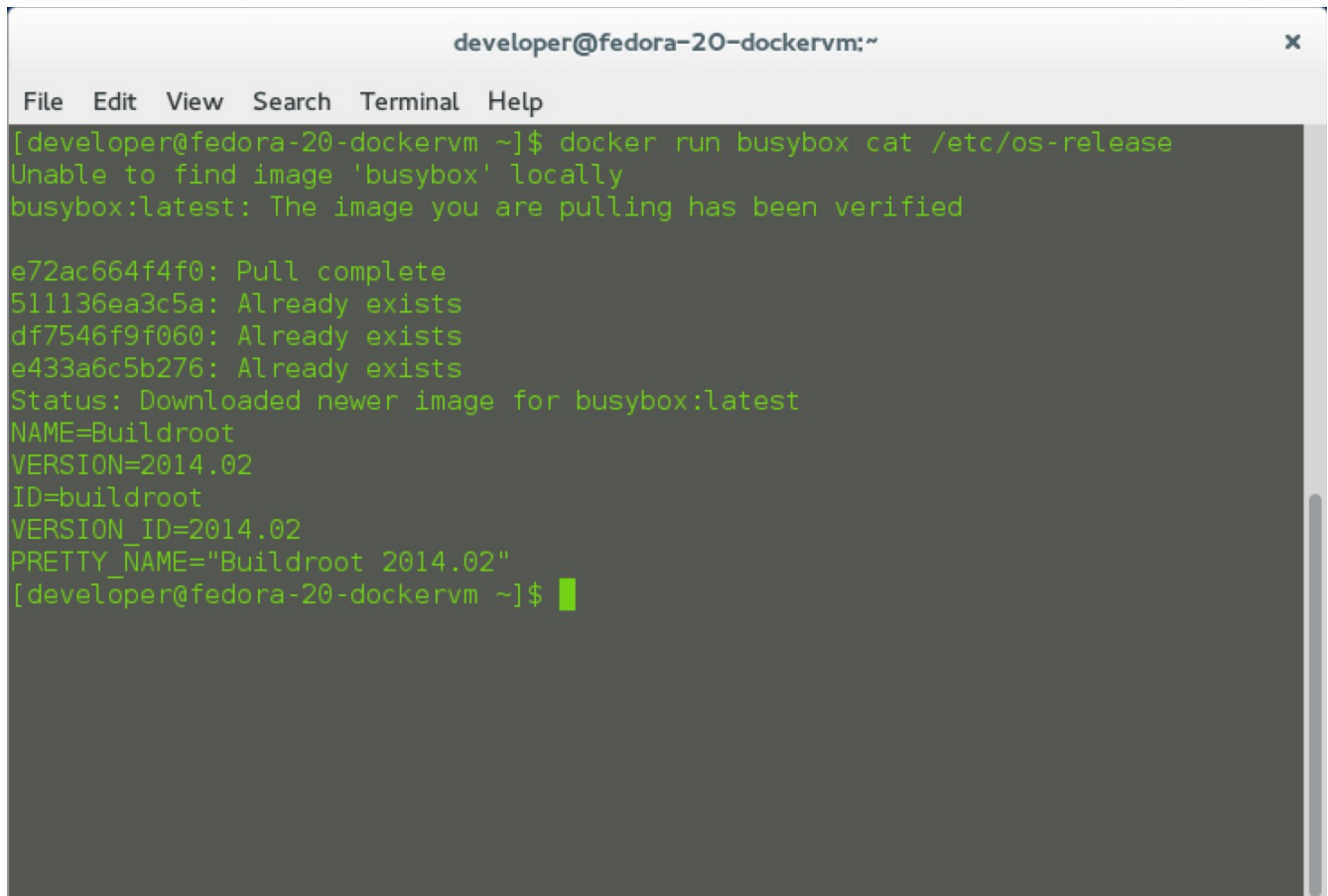
You'll have to logout and re-login for the changes to take effect.

# Test Docker Installation

Now that you have Docker installed, configured and running let's test the installation to ensure everything is running properly. To do so run the following in the terminal:

```
$ docker run busybox cat /etc/os-release
```

If everything is running properly you should see results similar to this:

A terminal window titled 'developer@fedora-20-dockervm:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal output shows the command 'docker run busybox cat /etc/os-release' being executed. The output indicates that the 'busybox' image was not found locally and was pulled from the Docker registry. The terminal text is as follows:

```
[developer@fedora-20-dockervm ~]$ docker run busybox cat /etc/os-release
Unable to find image 'busybox' locally
busybox:latest: The image you are pulling has been verified

e72ac664f4f0: Pull complete
511136ea3c5a: Already exists
df7546f9f060: Already exists
e433a6c5b276: Already exists
Status: Downloaded newer image for busybox:latest
NAME=Buildroot
VERSION=2014.02
ID=buildroot
VERSION_ID=2014.02
PRETTY_NAME="Buildroot 2014.02"
[developer@fedora-20-dockervm ~]$
```

Congratulations! You now have Docker successfully installed and running on your system.