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Once you have your SEED labs 20.04 VM setup, we will be performing all the experiments within this VM. There is no need to clone this VM as we will be creating docker containers within this VM to emulate this. This VM will henceforth be referred to as your host VM.

Lab Setup Instructions

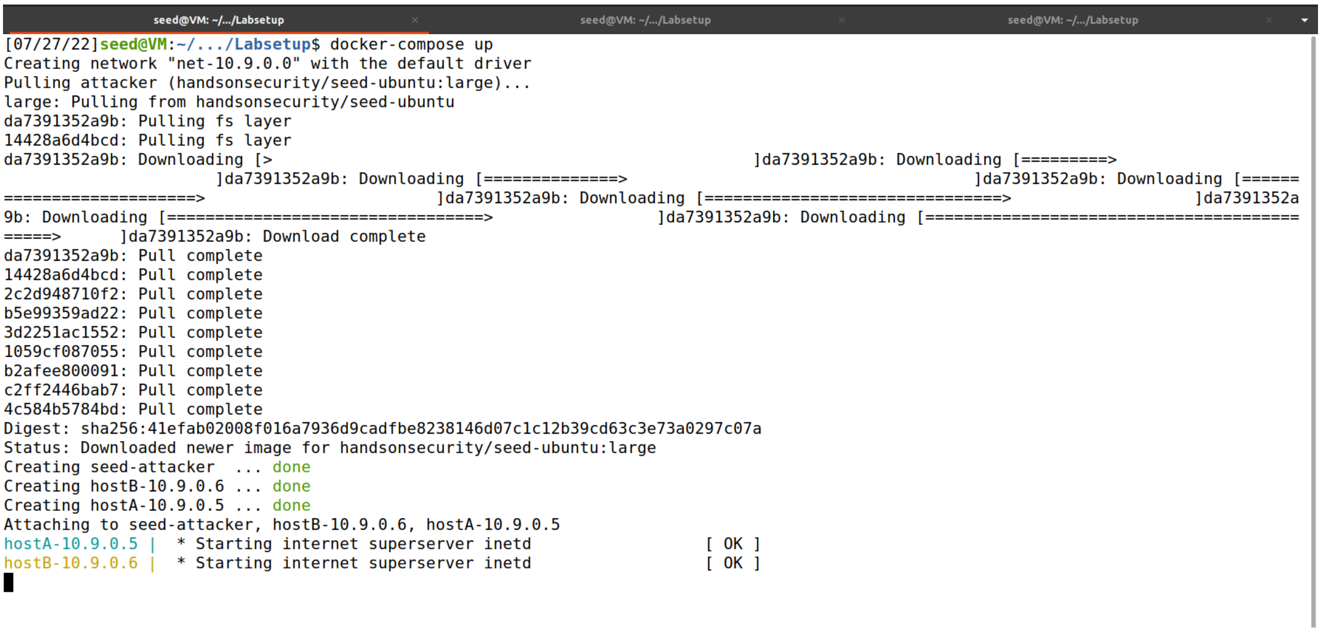
Along with each experiment there is a **Labsetup.zip** file, which contains the docker container configuration file required to set up the environment for each lab. Please use this link to download the zip file for sniffing and spoofing lab.

https://seedsecuritylabs.org/Labs_20.04/Files/Sniffing_Spoofing/Labsetup.zip

After downloading and extracting the lab setup file move into that directory and run the following command:

# docker-compose build

# docker-compose up

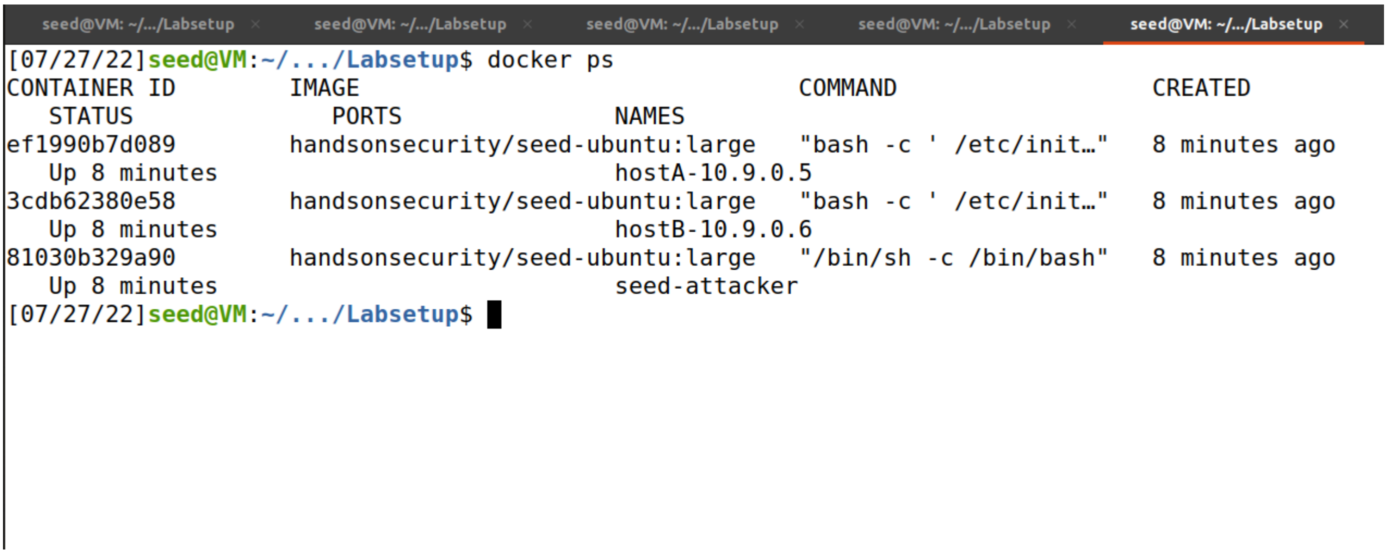


```
[07/27/22]seed@VM:~/.../Labsetup$ docker-compose up
Creating network "net-10.9.0.0" with the default driver
Pulling attacker (handsonsecurity/seed-ubuntu:large)...
large: Pulling from handsonsecurity/seed-ubuntu
da7391352a9b: Pulling fs layer
14428a6d4bcd: Pulling fs layer
da7391352a9b: Downloading [>                                                  ]da7391352a9b: Downloading [=========>                                         ]da7391352a9b: Downloading [==============>                                    ]da7391352a9b: Downloading [======
====================>                            ]da7391352a9b: Downloading [================================>                  ]da7391352a
9b: Downloading [==================================>                ]da7391352a9b: Downloading [=========================================
=====>       ]da7391352a9b: Download complete
da7391352a9b: Pull complete
14428a6d4bcd: Pull complete
2c2d948710f2: Pull complete
b5e99359ad22: Pull complete
3d2251ac1552: Pull complete
1059cf087055: Pull complete
b2afee800091: Pull complete
c2ff2446bab7: Pull complete
4c584b5784bd: Pull complete
Digest: sha256:41efab02008f016a7936d9cadfbe8238146d07c1c12b39cd63c3e73a0297c07a
Status: Downloaded newer image for handsonsecurity/seed-ubuntu:large
Creating seed-attacker  ... done
Creating hostB-10.9.0.6 ... done
Creating hostA-10.9.0.5 ... done
Attaching to seed-attacker, hostB-10.9.0.6, hostA-10.9.0.5
hostA-10.9.0.5 |  * Starting internet superserver inetd                  [ OK ]
hostB-10.9.0.6 |  * Starting internet superserver inetd                  [ OK ]
```

After running the commands open a new terminal window using the shortcut Ctrl + Shift + T or using the GUI.

In the newly opened terminal check if all the required containers have been deployed successfully using the following command :

# docker ps



```
[07/27/22]seed@VM:~/.../Labsetup$ docker ps
CONTAINER ID        IMAGE                                COMMAND                  CREATED
   STATUS              PORTS                    NAMES
ef1990b7d089        handsonsecurity/seed-ubuntu:large   "bash -c ' /etc/init…"   8 minutes ago
   Up 8 minutes                                 hostA-10.9.0.5
3cdb62380e58        handsonsecurity/seed-ubuntu:large   "bash -c ' /etc/init…"   8 minutes ago
   Up 8 minutes                                 hostB-10.9.0.6
81030b329a90        handsonsecurity/seed-ubuntu:large   "/bin/sh -c /bin/bash"   8 minutes ago
   Up 8 minutes                                 seed-attacker
[07/27/22]seed@VM:~/.../Labsetup$ 
```

Executing Commands in the Containers

All docker containers will run in the background. To access the various containers we just created and execute the attacks in, we must find the container's id. This is done using the previous “**docker ps”** command.

The first column shows the container IDs for each of the running containers and the names column gives you a description of that container.

To access and execute the commands inside the container we will use the docker exec command or the docksh command.

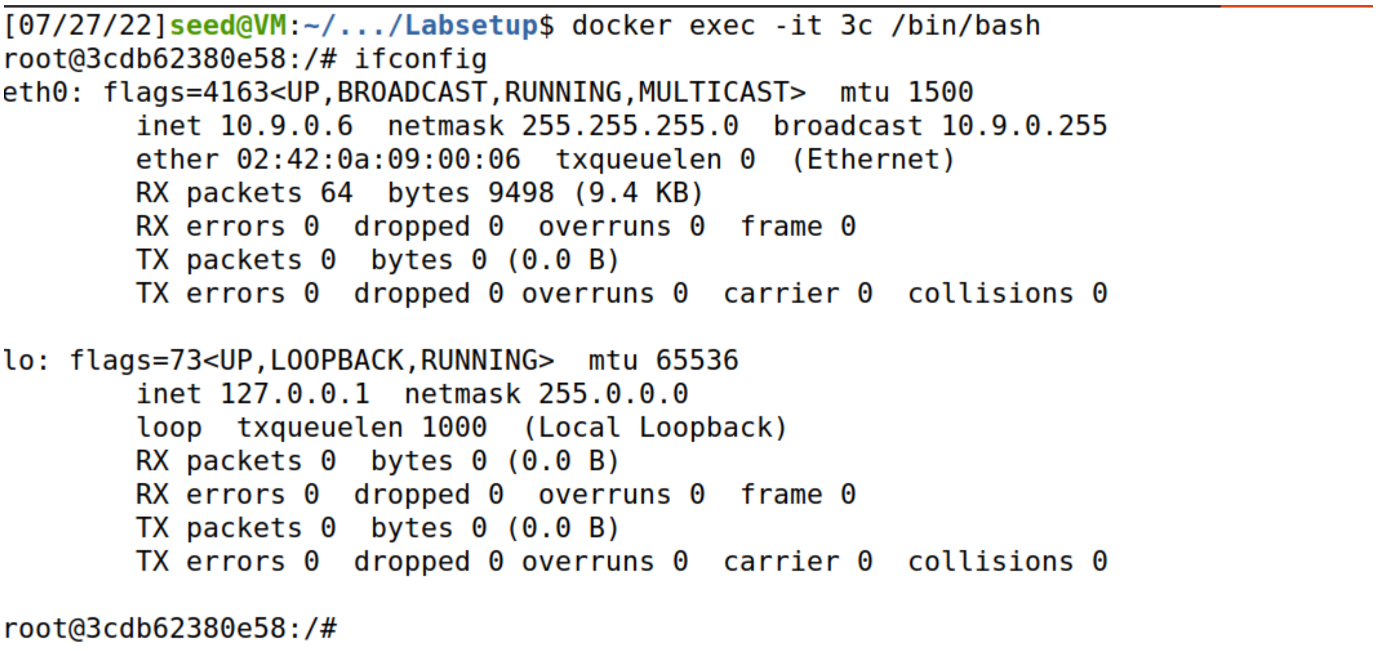
We will use the container ID of the docker container that we would like to login to in the command given below ie. replace **[container ID]** in the commands below with the required container ID.

Commands :

# docker exec -it [containerID] /bin/bash

OR USE

# docksh [container ID]



```
[07/27/22]seed@VM:~/.../Labsetup$ docker exec -it 3c /bin/bash
root@3cdb62380e58:/# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.9.0.6  netmask 255.255.255.0  broadcast 10.9.0.255
        ether 02:42:0a:09:00:06  txqueuelen 0  (Ethernet)
        RX packets 64  bytes 9498 (9.4 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

root@3cdb62380e58:/#
```

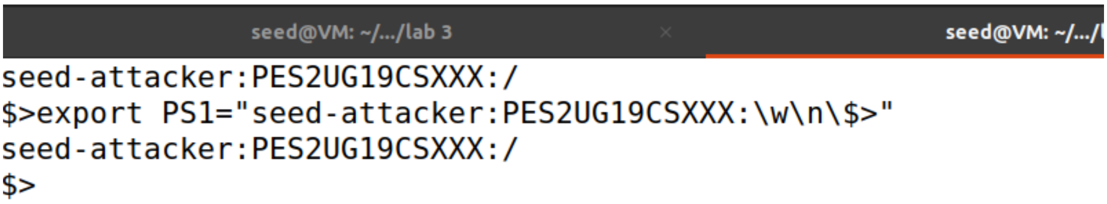
Change the container terminal name

Change the terminal name in each container with the appropriate container name and SRN and name.

If the terminal name is not changed, your lab will not be evaluated **AKA zero**.

Run the command in the docker containers to change their names:

export PS1="seed-attacker:PES1UG20CSXXX:Name:\w\n\$>"



```
seed-attacker:PES2UG19CSXXX:/
$>export PS1="seed-attacker:PES2UG19CSXXX:\w\n\$>"
seed-attacker:PES2UG19CSXXX:/
$>
```

Important

Within the container for the **attacker machine**, move to the **volumes** directory from the root directory before performing any of the experiments inside the containers. This stores the exploit files in the “**volumes**” folder inside the host VM. If not **all files that were created will be lost** when the containers are shut down.

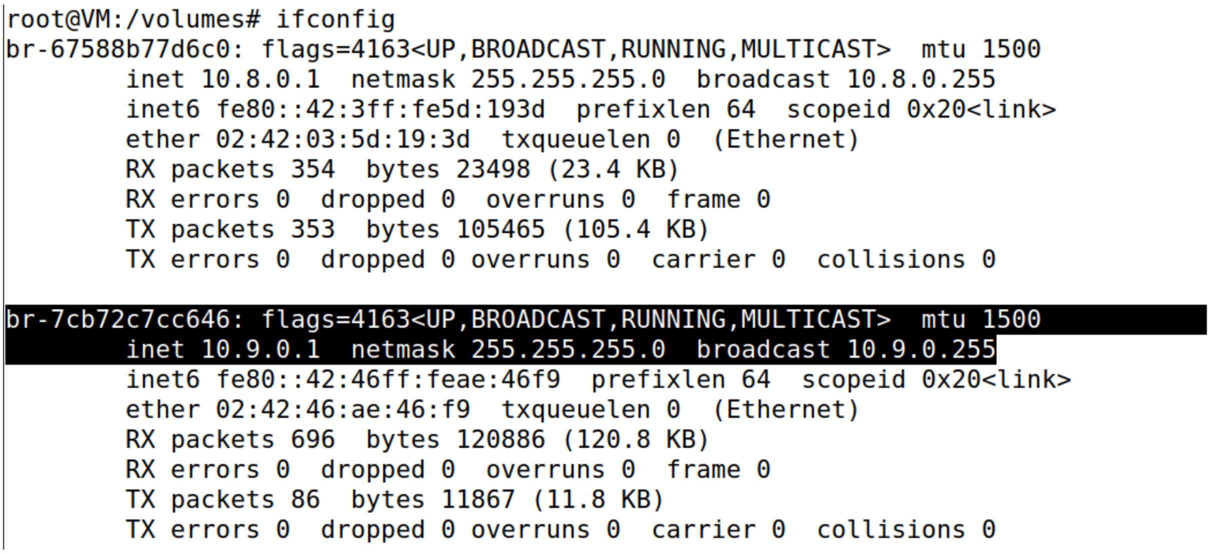
Command:

# cd volumes/

Finding the Network Interface of the Attacker Machine

The interface of the attacker machine's network adapter is required for most tasks in all labs and is the one displayed along with the attacker machine's IP address. In most cases the attacker machine's IP address is **10.9.0.1** and its interface is generated dynamically.
To get this we run the command :

# ifconfig



```
root@VM:/volumes# ifconfig
br-67588b77d6c0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.8.0.1  netmask 255.255.255.0  broadcast 10.8.0.255
        inet6 fe80::42:3ff:fe5d:193d  prefixlen 64  scopeid 0x20<link>
        ether 02:42:03:5d:19:3d  txqueuelen 0  (Ethernet)
        RX packets 354  bytes 23498 (23.4 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 353  bytes 105465 (105.4 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

br-7cb72c7cc646: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.9.0.1  netmask 255.255.255.0  broadcast 10.9.0.255
        inet6 fe80::42:46ff:feae:46f9  prefixlen 64  scopeid 0x20<link>
        ether 02:42:46:ae:46:f9  txqueuelen 0  (Ethernet)
        RX packets 696  bytes 120886 (120.8 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 86  bytes 11867 (11.8 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```