

Linux Fundamentals:

Link to challenge:

<https://academy.hackthebox.com/module/18/section/94>

(log in required)

System Information:

Question:

Find out the machine hardware name and submit it as the answer

Answer:

x86_64

Command:

uname -i

Question:

What is the path to the htb-student's mail?

Answer:

/var/mail/htb-student

Command:

env | grep mail

Question:

Which shell is specified for the htb-student user?

Answer:

/bin/bash

Command:

cat /etc/passwd | grep htb-student | awk -F":" '{print \$NF}'

Question:

Which kernel version is installed on the system? (Format: 1.22.3)

Answer:

4.15.0

Command:

`uname -r`

Question:

What is the name of the network interface that MTU is set to 1500?

Answer:

ens192

Command:

`ifconfig | grep 1500`

Navigation

Question:

What is the name of the hidden "history" file in the htb-user's home directory?

Answer:

`.bash_history`

Command:

`ls -a | grep history`

Question:

What is the index number of the "sudoers" file in the "/etc" directory?

Answer:

`147627`

Command:

`ls /etc/sudoers -i`

Working with Files and Directories:

Question:

What is the name of the last modified file in the "/var/backups" directory?

Answer:

apt.extended_states.0

Command:

```
ls -lt /var/backups | sed '2q;d'
```

Question:

What is the inode number of the "shadow.bak" file in the "/var/backups" directory?

Answer:

265293

Command:

```
ls /var/backups/shadow.bak -i | awk '{print $1}'
```

Find Files and Directories

Question:

What is the name of the config file that has been created after 2020-03-03 and is smaller than 28k but larger than 25k?

Answer:

00-mesa-defaults.conf

Command:

```
find / -type f -newermt 2020-03-03 -size +25k -size -28k -name "*.conf" -exec  
basename {} \; 2>/dev/null
```

Question:

How many files exist on the system that have the ".bak" extension?

Answer:

4

Command:

```
find / -type f -name "*.bak" 2>/dev/null | wc -l
```

Question:

Submit the full path of the "xxd" binary.

Answer:

/usr/bin/xxd

Command:

which xxd

File Descriptors and Redirections:

Question:

How many files exist on the system that have the ".log" file extension?

Answer:

32

Command:

```
find / -type f -name "*.log" 2>/dev/null | wc -l
```

Question:

How many total packages are installed on the target system?

Answer:

737

Command:

```
dpkg --get-selections | grep ^ii | wc -l
```

Filter Contents

Question:

How many services are listening on the target system on all interfaces? (Not on localhost and IPv4 only)

Answer:

7

Command:

```
ss -l -4 | grep -v "127\0\0" | grep "LISTEN" | wc -l
```

(-l: listening services only

-4: ipv4 display only)

Question:

Determine what user the ProFTPD server is running under. Submit the username as the answer.

Answer:

Proftpd

Command:

```
Option1: systemctl list-units --type=service --state=running | grep -i proftpd
```

```
Option2: ps aux | grep -i proftpd
```

(-i: case insensitive search)

User Management

Question:

Which option needs to be set to create a home directory for a new user using "useradd" command?

Answer:

-m

Question:

Which option needs to be set to lock a user account using the "usermod" command? (long version of the option)

Answer:

--lock

Question:

Which option needs to be set to execute a command as a different user using the "su" command? (long version of the option)

Answer:

--command

Service and Process Management

Question:

Use the "systemctl" command to list all units of services and submit the unit name with the description "Load AppArmor profiles managed internally by snapd" as the answer.

Answer:

snapd.apparmor.service

Command:

```
systemctl list-units --type=service | grep "Load AppArmor profiles managed internally by snapd" | awk '{print $1}'
```

Task Scheduling:

Question:

What is the type of the service of the "syslog.service"?

Answer:

notify

Command:

```
systemctl show syslog.service -p Type
```