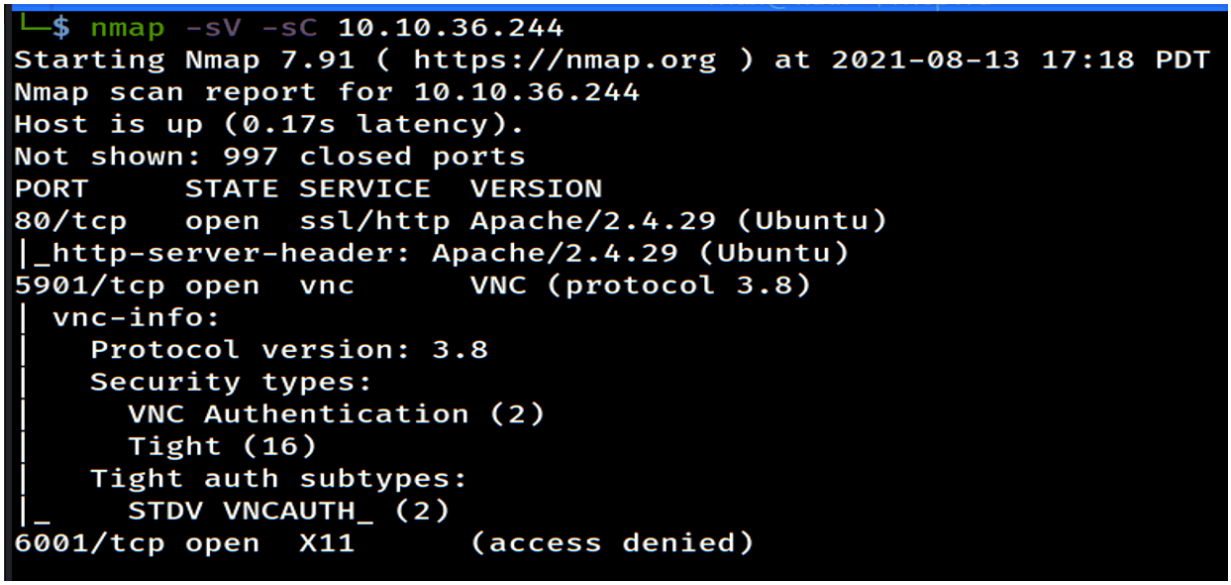
SUPER-SPAM THM ROOM

Room Link: https://tryhackme.com/room/superspamr

Great write up: https://salmonsec.com/blogs/tryhackme_superspamr

PORTS OPEN
80 HTTP
4012 SSH
4019 FTP W/ANONYMOUS LOGIN
5901 VNC
6001 X11



I also run Threader at the same time – it is quick and sometimes catches ports that nmap misses:

```
PORT     STATE SERVICE VERSION
80/tcp   open  http    Apache httpd 2.4.29 ((Ubuntu))
|_http-generator: concrete5 - 8.5.2
|_http-server-header: Apache/2.4.29 (Ubuntu)
| http-title: Home :: Super-Spam
4012/tcp open  ssh     OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 86:60:04:c0:a5:36:46:67:f5:c7:24:0f:df:d0:03:14 (RSA)
|   256 ce:d2:f6:ab:69:7f:aa:31:f5:49:70:e5:8f:62:b0:b7 (ECDSA)
|_  256 73:a0:a1:97:c4:33:fb:f4:4a:5c:77:f6:ac:95:76:a4 (ED25519)
4019/tcp open  ftp     vsftpd 3.0.3
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
| drwxr-xr-x    2 ftp      ftp          4096 Feb 20 14:42 IDS_logs
|_-rw-r--r--    1 ftp      ftp           526 Feb 20 13:53 note.txt
| ftp-syst:
|   STAT:
| FTP server status:
|      Connected to ::ffff:10.2.57.21
|      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 2
|      vsFTPd 3.0.3 - secure, fast, stable
|_End of status
5901/tcp open  vnc     VNC (protocol 3.8)
| vnc-info:
|   Protocol version: 3.8
|   Security types:
|     VNC Authentication (2)
|     Tight (16)
|   Tight auth subtypes:
|_    STDV VNCAUTH_ (2)
6001/tcp open  X11     (access denied)
```

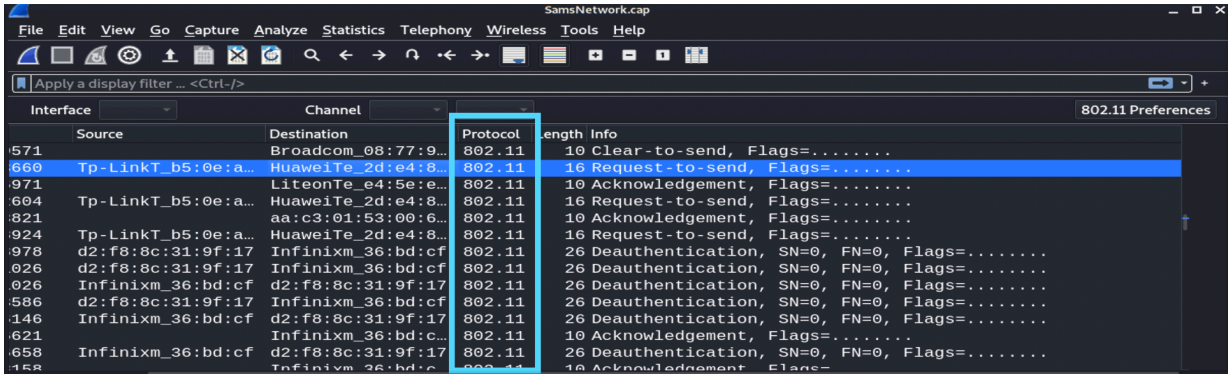
I started with the ftp server on port 4019, no password needed. Just type ‘anonymous’ after you’ve logged in and you are set.

```
┌──(max㉿kali)-[~/Downloads]
└─$ ftp 10.10.36.244 4019
Connected to 10.10.36.244.
220 (vsFTPd 3.0.3)
Name (10.10.36.244:max): anonymous
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls -la
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
drwxr-xr-x    4 ftp      ftp          4096 May 30 19:26 .
drwxr-xr-x    4 ftp      ftp          4096 May 30 19:26 ..
drwxr-xr-x    2 ftp      ftp          4096 May 30 19:26 .cap
drwxr-xr-x    2 ftp      ftp          4096 Feb 20 14:42 IDS_logs
-rw-r--r--    1 ftp      ftp           526 Feb 20 13:53 note.txt
226 Directory send OK.
```

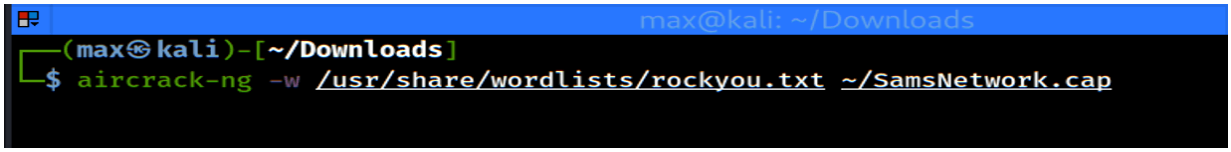
We find the SamsNetwork.cap file and a note from the hacker. He left it as a reminder to himself on how he broke in! Definitely worth a look– let’s download it.

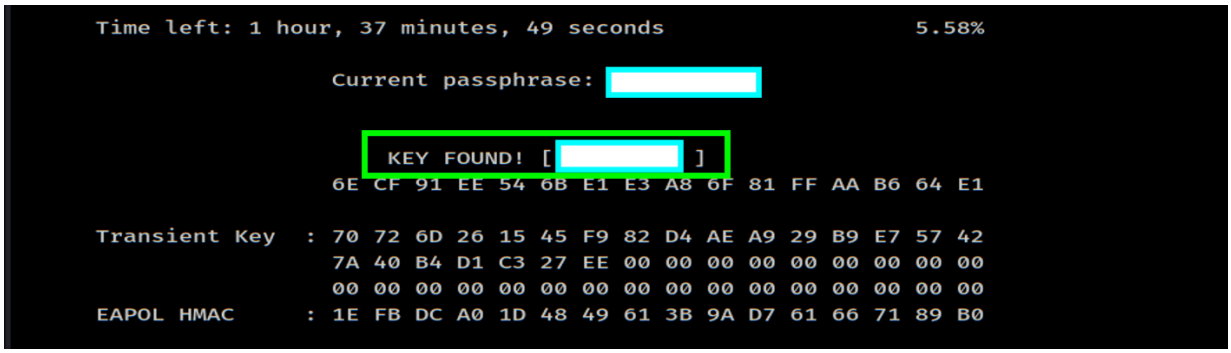
```
drwxr-xr-x    2 ftp      ftp          4096 May 30 19:26 .
drwxr-xr-x    4 ftp      ftp          4096 May 30 19:26 ..
-rw-r--r--    1 ftp      ftp           249 Feb 20 13:36 .quicknote.txt
-rwxr--r--    1 ftp      ftp        370488 Feb 20 14:46 SamsNetwork.cap
```

wireshark shows it's a wireless packet capture, Protocol 802.11 gives that away. Maybe we can crack the passphrase?

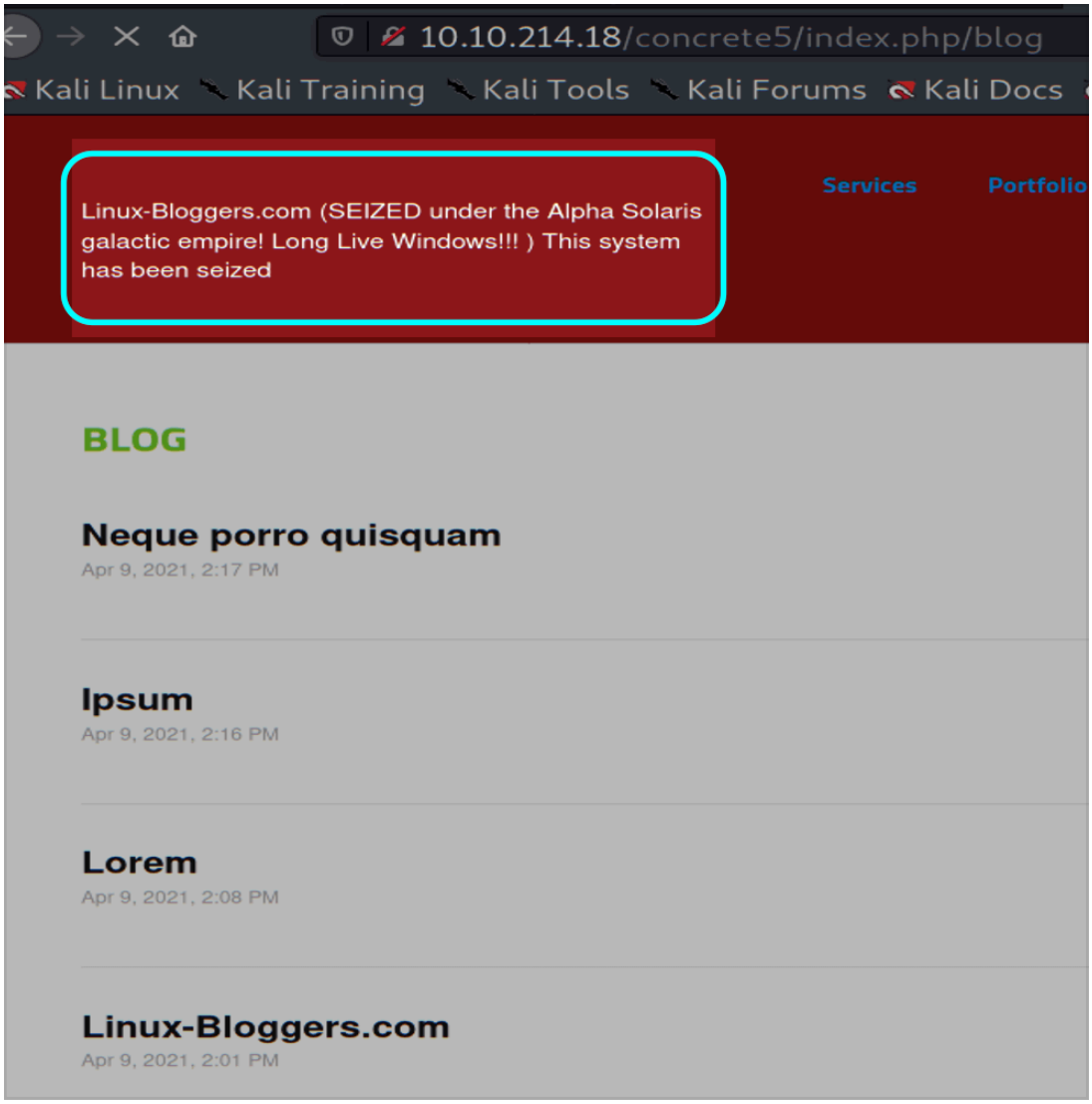


using aircrack-ng to crack the passphrase on the .cap file in under 6 minutes.



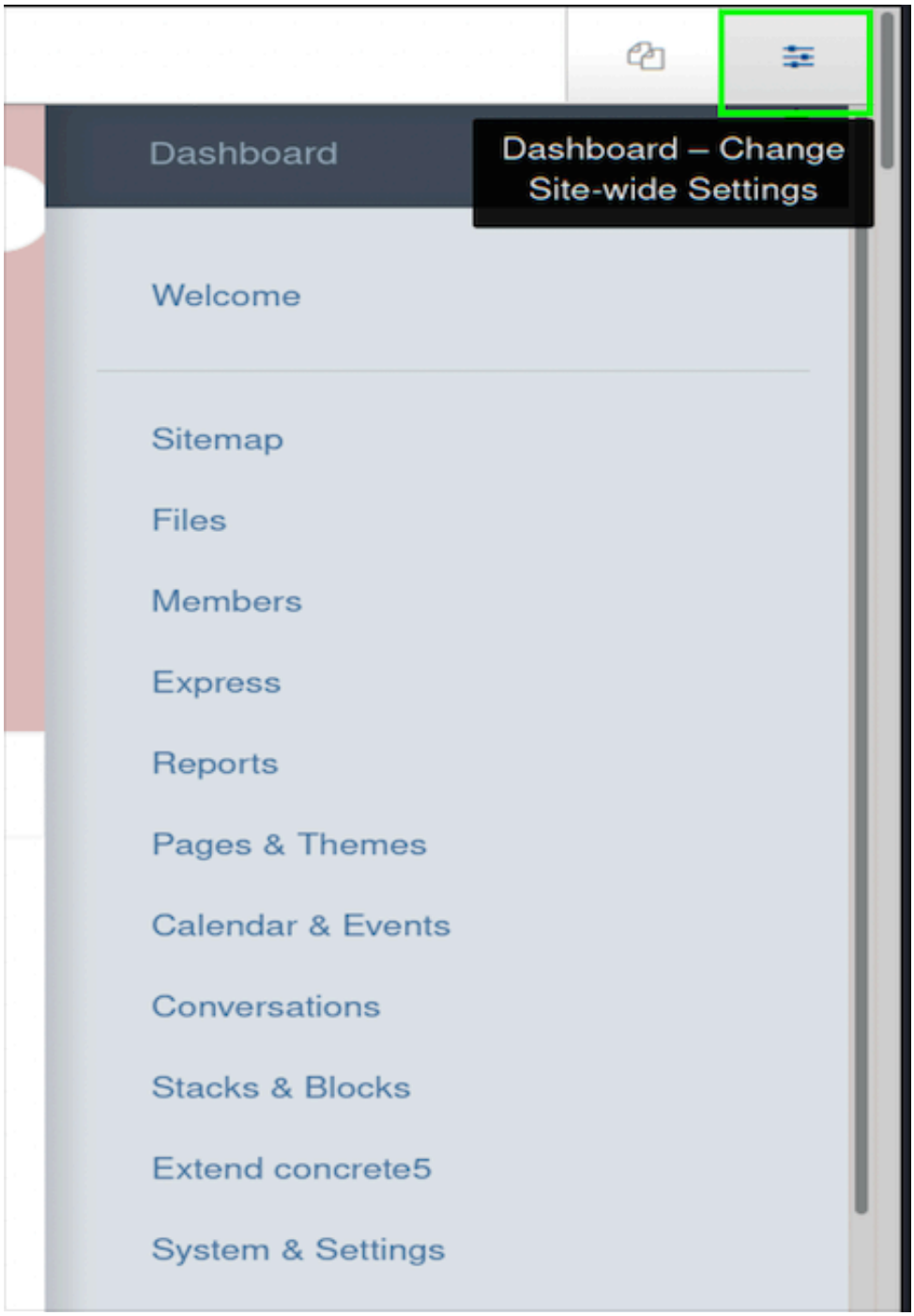


We check the website on port 80 and find evidence the hacker was here with his taunting message. Maybe the password we just found logs into this blog? But which username?

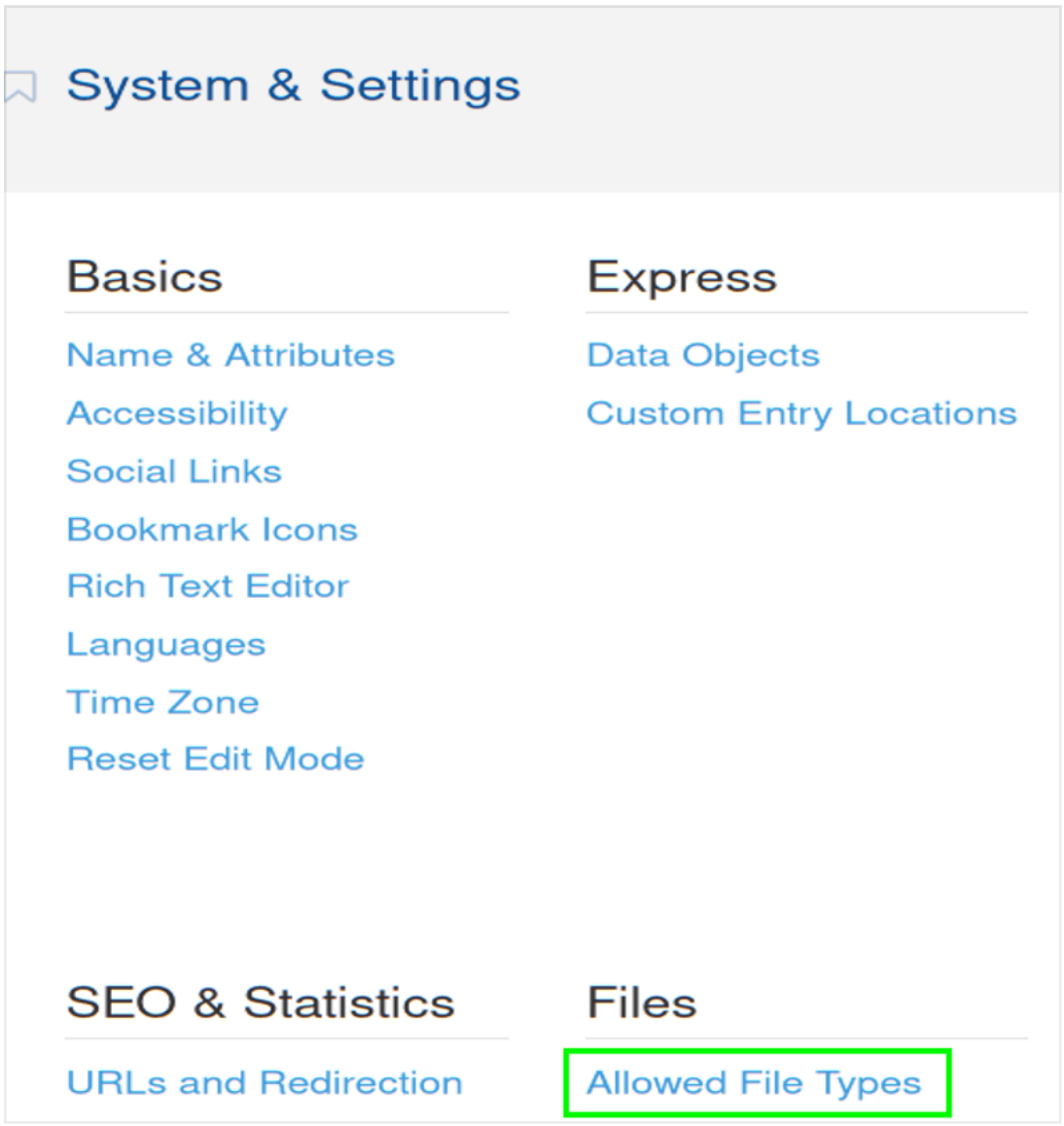


Clicking on each blog post lists the author name:

We tried this password against all 4 blog users and one of them logs us in!
After login we navigate to the Dashboard. We click on the icon located at the upper right corner:

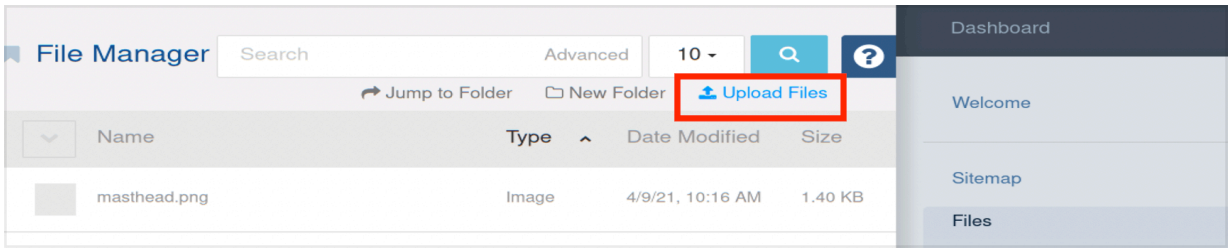


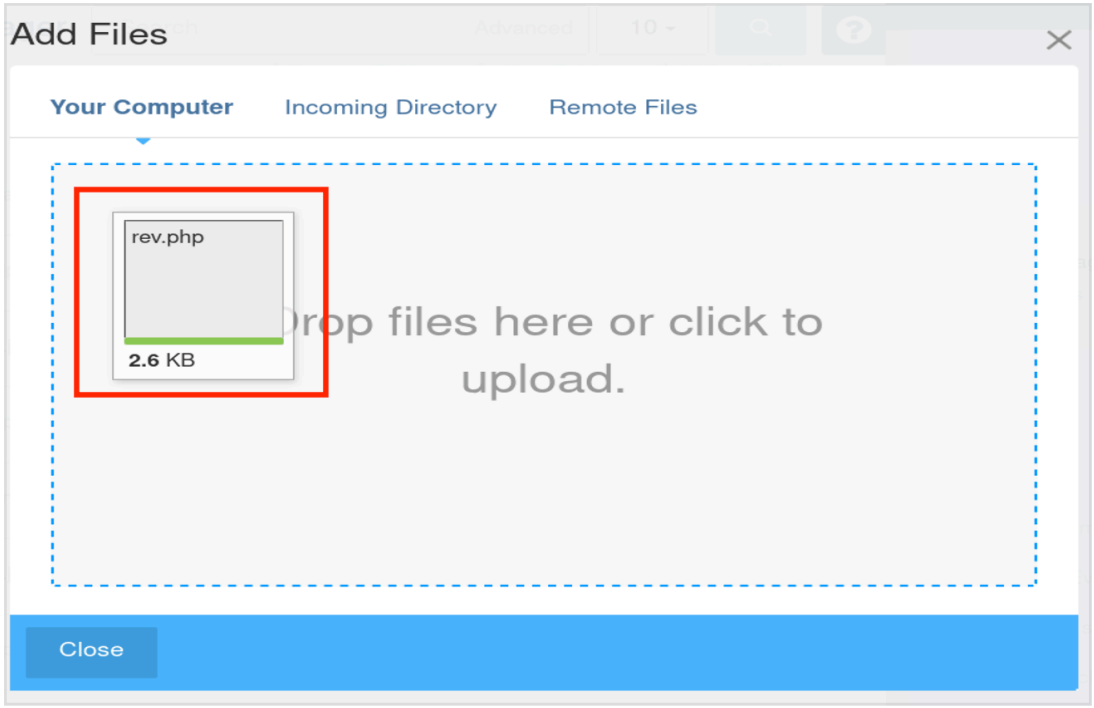
Now we are in System Settings. Click on the Allowed File Types, bottom right corner:

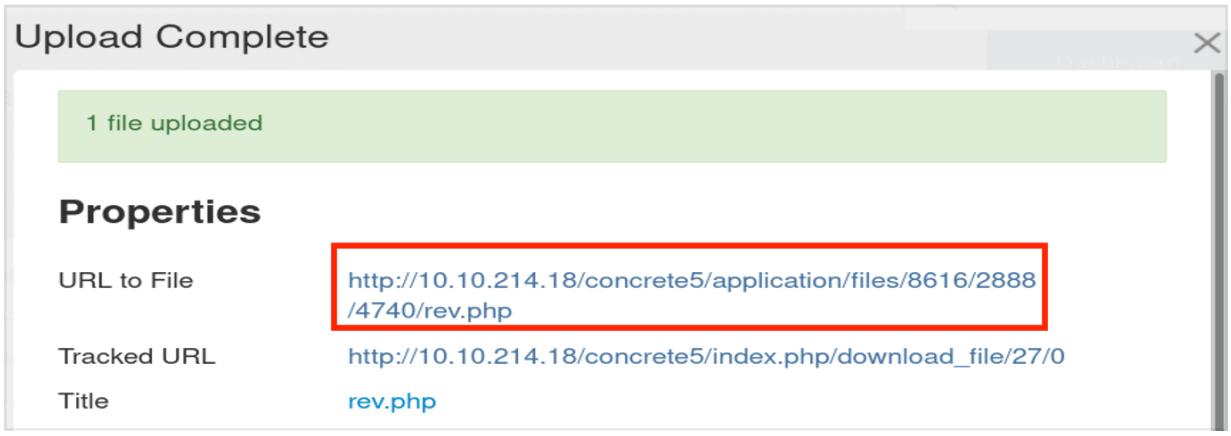


We then add ‘php’ to the Allowed File Types Box and Save.

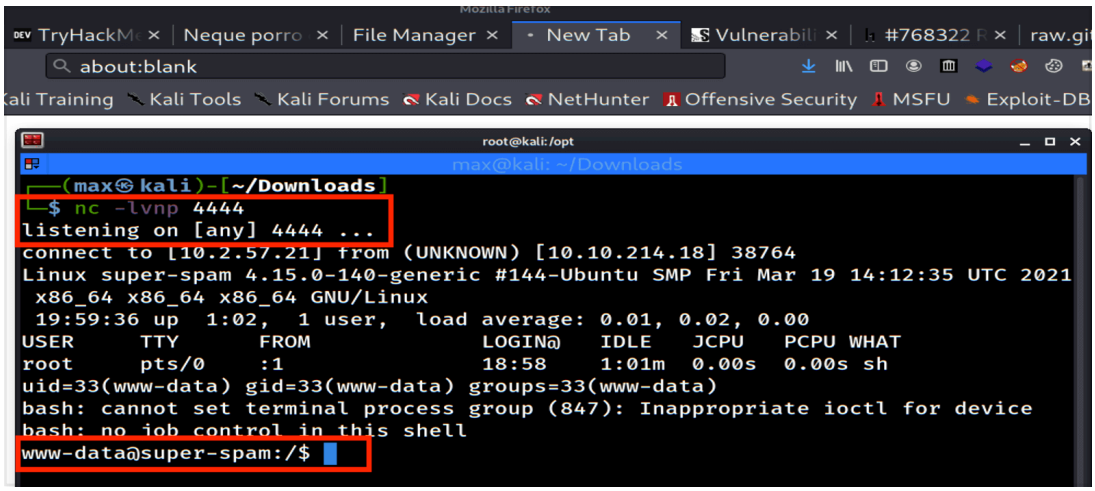
Now we can go to the File Manager and upload our revshell.php file. I chose to use the PentestMonkey_reverse_shell on Github:







With a netcat listener started on our machine, we can click on the URL to File link the program generates for us after upload. Clicking this link will execute our rev shell file and connect back to our already waiting machine.



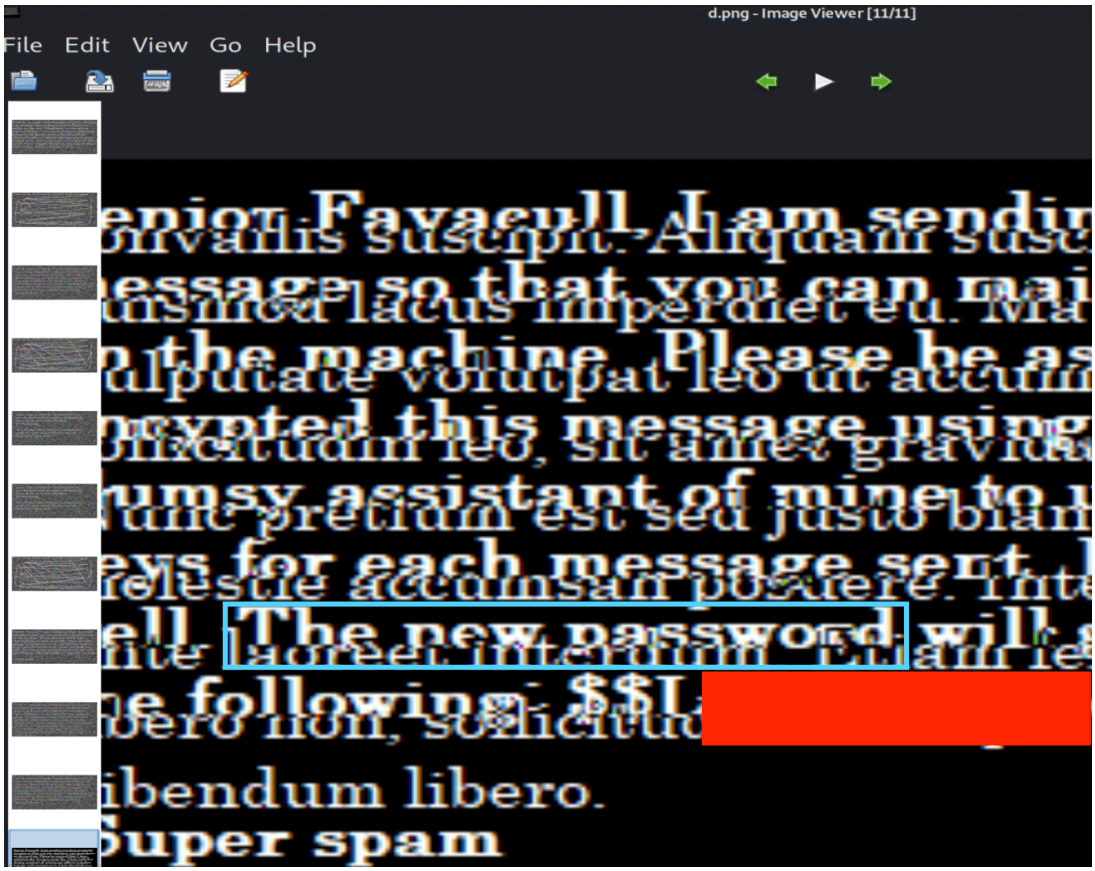
We are in! We locate a directory that contains a xored.py file, a note, and 10 .png files. It looks like they used XOR to encrypt the picture files with a secret message. Lets download this for more analysis:

```
www-data@super-spam:/home/lucy_loser/.MessagesBackupToGalactic$ ls -la
ls -la
total 1720
drwxr-xr-x 2 lucy_loser lucy_loser   4096 May 30 20:03 .
drwxr-xr-x 7 lucy_loser lucy_loser   4096 Apr  9 15:23 ..
-rw-r--r-- 1 lucy_loser lucy_loser 172320 Apr  8 19:08 c1.png
-rw-r--r-- 1 lucy_loser lucy_loser 171897 Apr  8 19:10 c10.png
-rw-r--r-- 1 lucy_loser lucy_loser 168665 Apr  8 19:08 c2.png
-rw-r--r-- 1 lucy_loser lucy_loser 171897 Apr  8 19:10 c3.png
-rw-r--r-- 1 lucy_loser lucy_loser 171462 Apr  8 19:08 c4.png
-rw-r--r-- 1 lucy_loser lucy_loser 167772 Apr  8 19:09 c5.png
-rw-r--r-- 1 lucy_loser lucy_loser 167772 Apr  8 19:09 c6.png
-rw-r--r-- 1 lucy_loser lucy_loser 171462 Apr  8 19:08 c7.png
-rw-r--r-- 1 lucy_loser lucy_loser 171734 Apr  8 19:09 c8.png
-rw-r--r-- 1 lucy_loser lucy_loser 173994 Apr  8 19:10 c9.png
-rw-r--r-- 1 lucy_loser lucy_loser  20987 Apr  8 19:33 d.png
-rw-r--r-- 1 lucy_loser lucy_loser    497 May 30 20:03 note.txt
-rw-r--r-- 1 lucy_loser lucy_loser   1200 Apr  8 18:11 xored.py
www-data@super-spam:/home/lucy_loser/.MessagesBackupToGalactic$ cat no
cat note.txt
Note to self. General super spam mentioned that I should not make the same mistake agai
n of re-using the same key for the XOR encryption of our messages to Alpha Solaris IV's
 headquarters, otherwise we could have some serious issues if our encrypted messages ar
e compromised. I must keep reminding myself,do not re-use keys,I have done it 8 times a
lready!.The most important messages we sent to the HQ were the first and eighth message
.I hope they arrived safely.They are crucial to our end goal.
```

wget -r the -r flag (recursive) allows you to download every file in a dir from a remote target.
best if used with a python -m http.server running on the target in the dir you want to download.

```
┌──(max㉿kali)-[~]
└─$ wget -r  10.10.214.18:8080/
```

Once all files are downloaded to our box, we open the .png files and one of them you can actually read a message with a password: This password turns out to be user:donalddump's ssh login passwd. We determine this by trying each (4) of our blog usernames against it, while trying to connect via ssh:



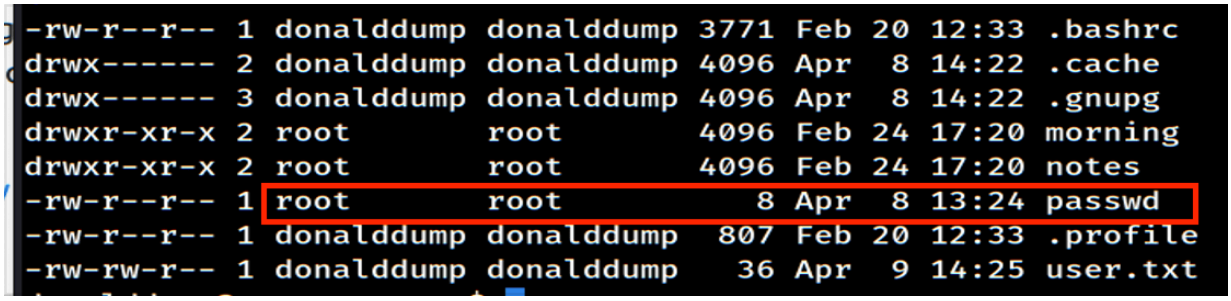
We are now logged in as user:donalddump via ssh but can't access our own home directory.
User doesn't have permission to access his own files?? Why?

```
dr--r--r--  6 donalddump     donalddump     4096 Apr  9 15:23 donalddump
drwxr-xr-x  7 lucy_loser     lucy_loser     4096 Apr  9 15:23 lucy_loser
drwxr-xr-x  5 root           root           4096 May 30 20:08 personal
drwxr-xr-x  4 super-spam     super-spam     4096 Apr  9 15:24 super-spam
donalddump@super-spam:/home$ cd donalddump
bash: cd: donalddump: Permission denied
```

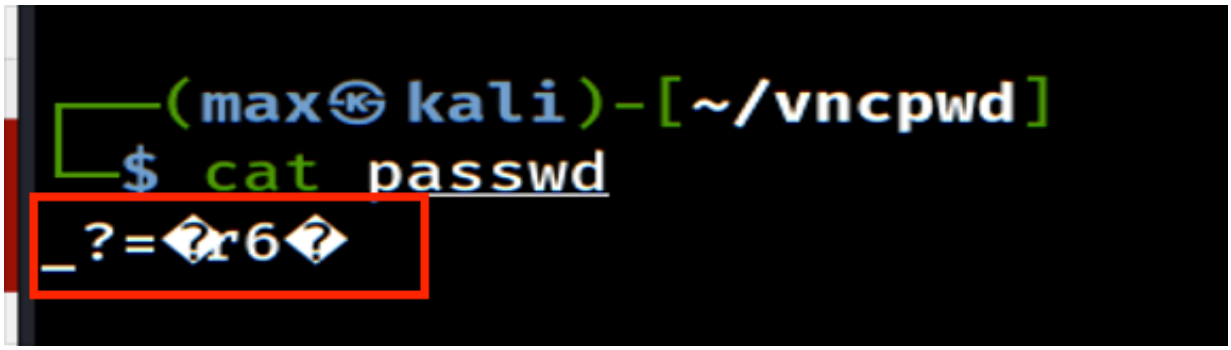
chmod –u+x+r+w gives the user donalddump read,write,execute perms to donalddump dir. Easy-peasy ,once you know!

```
donalddump@super-spam:/home$ chmod -u+x+r+w donalddump
donalddump@super-spam:/home$ ls -la
total 28
drwxr-xr-x  7 root             root             4096 Feb 20 17:29 .
drwxr-xr-x 22 root             root             4096 Apr  9 15:19 ..
drwxr-xr-x  2 benjamin_blogger benjamin_blogger 4096 Apr  9 15:22 benjamin_blogger
drwxrwxr-x  6 donalddump       donalddump       4096 Apr  9 15:23 donalddump
```

We find a file owned by root in donalddump's home directory named passwd- now that's interesting.



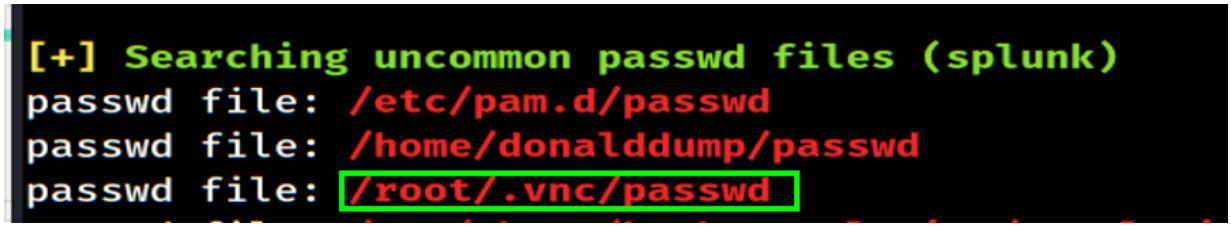
the password looks encrypted–it prints pure nonsense to screen. What is this password for?? Let's download it for more exploring later:



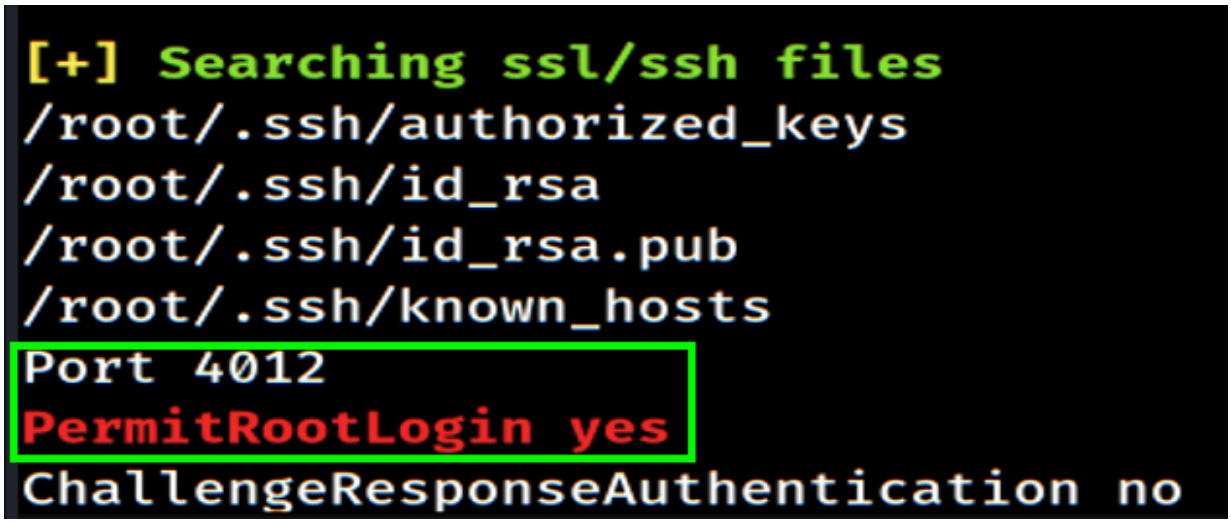
We upload and run Linpeas to the target:

this “passwd” file pops up as a VNC passwd file owned by root. This is the service we found on port 5901 during our portscan. It is the same file length as the “passwd” file we found in the donalddump dir too. Are they the same?

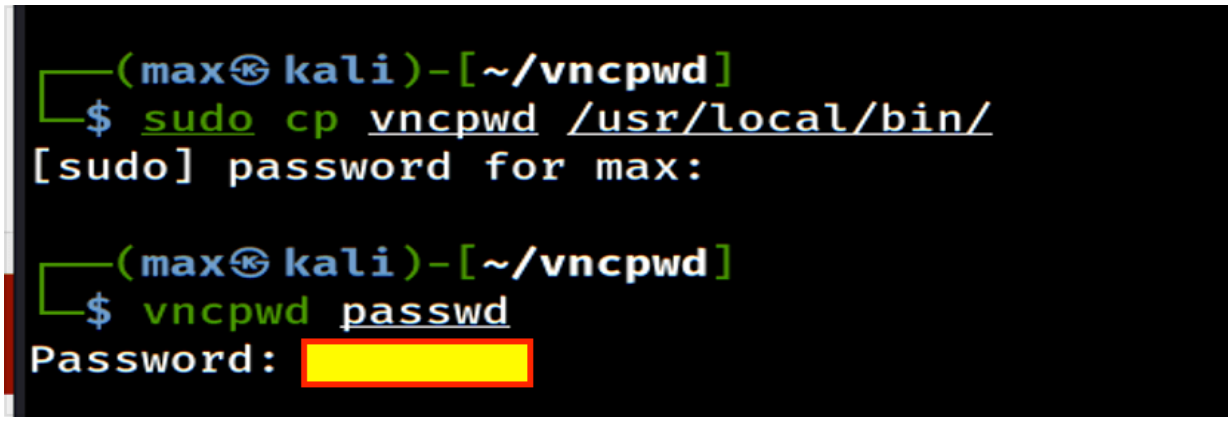
uncommon is right! This could be our privesc if we could only decode it!



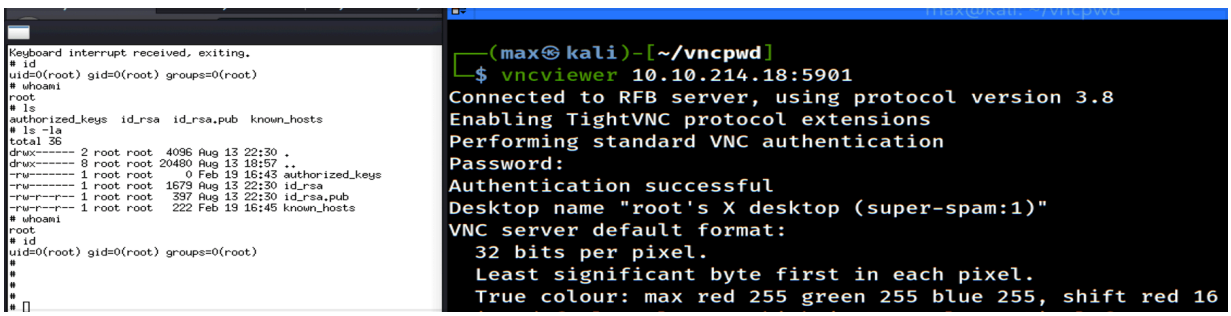
Root can login in with ssh- that may come in handy



Google is our best friend and a solution pops up immediately after searching “vnc password decrypter github”. We download the program with git-clone https://github.com/jeroennijhof/vncpwd. The install directions call for it to be compiled and provide a one-line command to make this process painless. Adding our VNC Password Cracker binary to our /usr/local/bin so we can use it anywhere :



using vncviewer already installed on Kali, we log into the service as root with our decrypted password:



Here we find the root flag file named r00t.txt

```
root@super-spam:~# cd .nothing/
root@super-spam:~/.nothing# ls -la
total 28
drwxr-xr-x 2 root root  4096 Feb 24 16:52 .
drwx------ 8 root root 20480 Aug 14 02:12 ..
-rw-r--r-- 1 root root   377 Feb 20 17:12 r00t.txt
```

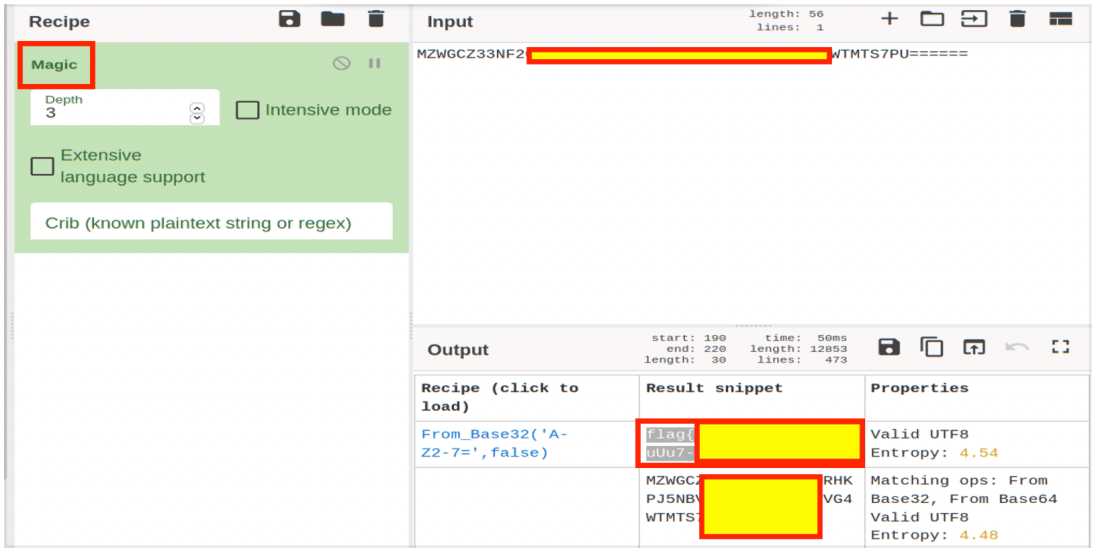
We cat it to screen and copy N paste it to CyberChef.com

```
root@super-spam:~/.nothing# cat r00t.txt

what am i?: MZWGCZ33NF2GKZK[redacted]CU5MXKVLVG4WTMTS7PU======

KRUGS4ZANFZSA3TPOQQG65TFOIQSAWLPOUQG2YLZEBUGC5TFEBZWC5TFMQQHS33VOIQG
EZLMN53GKZBAOBWGC3TFOQQHI2DJOMQHI2LNMUWCASDBMNVWK4RNNVQW4LBAMJ2XIICJ
EB3WS3DMEBRGKIDCMFRWWIDXNF2GQIDBEBRGSZ3HMVZCYIDNN5ZGKIDEMFZXIYLSMRWH
SIDQNRQW4IDUN4QGOZLUEBZGSZBAN5TCA5DIMF2CA2LOMZSXE2LPOIQG64DFOJQXI2LO
M4QHG6LTORSW2LBAJRUW45LYFYQA====
```

the magic function at Cyberchef.com decrypts the 2 strings, automagically: We have our final flag and a farewell message from Super-Spam:



```
KRUGS4ZANFZSA3TPOQQG65TFOIQSAWLPOUQG2YLZEBUGC5TFEBZWC5TFMQQHS33VOIQG
EZLMN53GKZBAOBWGC3TFOQQHI2DJOMQHI2LNMUWCASDBMNVWK4RNNVQW4LBAMJ2XIICJ
EB3WS3DMEBRGKIDCMFRWWIDXNF2GQIDBEBRGSZ3HMVZCYIDNN5ZGKIDEMFZXIYLSMRWH
SIDQNRQW4IDUN4QGOZLUEBZGSZBAN5TCA5DIMF2CA2LOMZSXE2LPOIQG64DFOJQXI2LO
M4QHG6LTORSW2LBAJRUW45LYFYQA====
```

Output

time: 31ms
length: 13388
lines: 473

Recipe (click to load)	Result snippet	Properties
From_Base32('A-Z2-7=',false)	This is not over! You may have saved your beloved planet this time, Hacker-man, but I will be ba...	Possible languages: English Turkish Indonesian Slovenian