Metasploit para novatos

Estos ejemplos son para una versión de Metasploit preinstalada en sistemas kali linux.

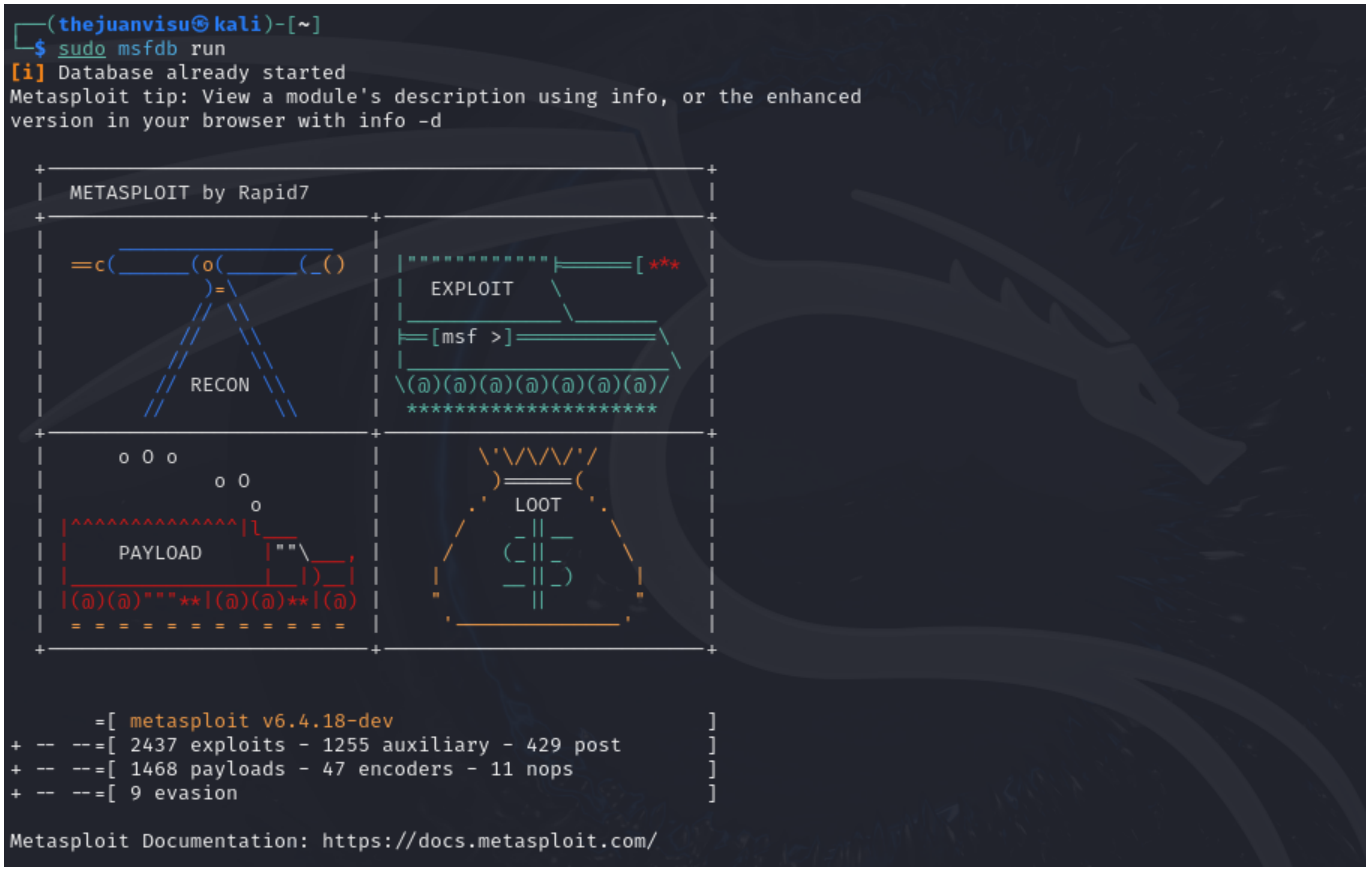
1. Inicialización de la base de datos y primer arranque de metasploit

Para el uso de metasploit se recomienda inicializar la base de datos la primera vez que se arranque con el comando:

```
msfdb init
```

Una vez que se inicialice la base de datos, cada vez que se quiera usar metasploit se puede arrancar con el siguiente comando:

```
msfdb run
```



2. Escaneo de máquina objetivo

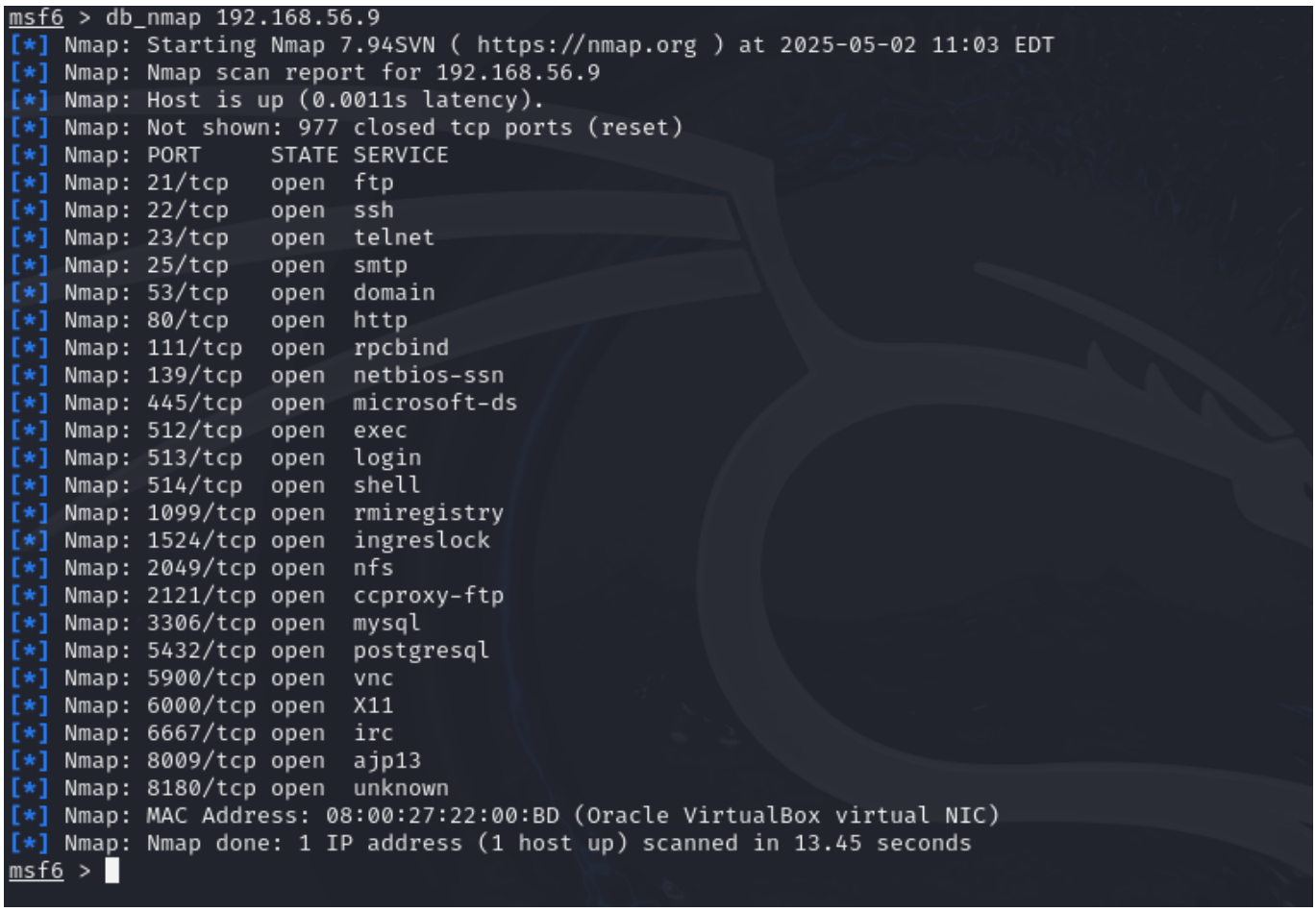
Lo primero que debemos hacer es escanear los puertos de la máquina objetivo para identificar que servicios tiene arrancados y si alguno de estos es vulnerable.

2.1 NMAP

Primero se puede comenzar realizando un escaneo de namp desde metasploit con el siguiente comando:

```
db_nmap <ip_maquina_objetivo>
```

Como resultado deberíamos recibir un listado de puertos abiertos indicando que servicio provee cada uno:



2.2 Metasploit port scanner

Alternativamente también se puede usar el módulo de escaneo de metasploit, para ello podemos seleccionarlo con el siguiente comando:

```
use auxiliary/scanner/portscan/tcp
```

Una vez seleccionado el módulo, hay que configurar sus parámetros, podemos ver los parámetros disponibles con el siguiente comando.

```
show options
```

```
msf6 > use auxiliary/scanner/portscan/tcp
msf6 auxiliary(scanner/portscan/tcp) > show options

Module options (auxiliary/scanner/portscan/tcp):

   Name         Current Setting  Required  Description
   ----         ---------------  --------  -----------
   CONCURRENCY  10               yes       The number of concurrent ports to check per host
   DELAY        0                yes       The delay between connections, per thread, in milliseconds
   JITTER       0                yes       The delay jitter factor (maximum value by which to +/- DELAY) in millis
                                           econds.
   PORTS        1-10000          yes       Ports to scan (e.g. 22-25,80,110-900)
   RHOSTS                        yes       The target host(s), see https://docs.metasploit.com/docs/using-metasplo
                                           it/basics/using-metasploit.html
   THREADS      1                yes       The number of concurrent threads (max one per host)
   TIMEOUT      1000             yes       The socket connect timeout in milliseconds


View the full module info with the info, or info -d command.

msf6 auxiliary(scanner/portscan/tcp) >
```

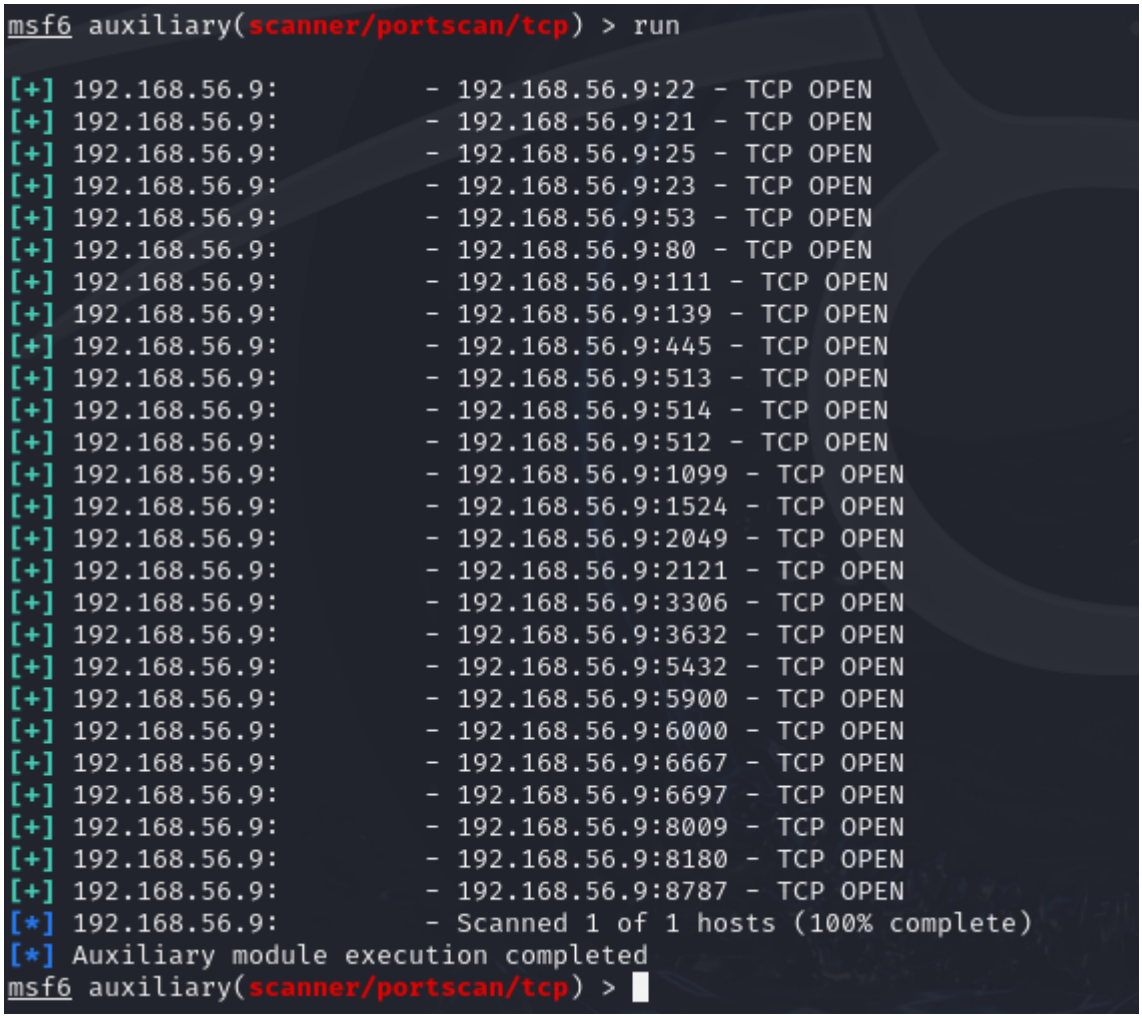
Para configurar los parámetros se debe usar el comando set:

```
set <parámetro> <valor>
```

Por ejemplo, en este caso se debe establecer un valor para RHOST para indicarle a metasploit que máquina de la red debe escanear:

```
msf6 auxiliary(scanner/portscan/tcp) > set RHOST 192.168.56.9
RHOST ⇒ 192.168.56.9
```

Una vez configurados los parámetros se puede ejecutar el módulo con el comando run:



2.3 Escaneo Profundo

Podemos realizar un escaneo profundo de la máquina en cuestión con el siguiente comando:

```
db_nmap -sV <ip_máquina_objetivo>
```

```
msf6 auxiliary(scanner/portscan/tcp) > db_nmap -sV 192.168.56.9
[*] Nmap: Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-02 11:17 EDT
[*] Nmap: Nmap scan report for 192.168.56.9
[*] Nmap: Host is up (0.00050s latency).
[*] Nmap: Not shown: 977 closed tcp ports (reset)
[*] Nmap: PORT     STATE SERVICE     VERSION
[*] Nmap: 21/tcp   open  ftp         vsftpd 2.3.4
[*] Nmap: 22/tcp   open  ssh         OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
[*] Nmap: 23/tcp   open  telnet      Linux telnetd
[*] Nmap: 25/tcp   open  smtp        Postfix smtpd
[*] Nmap: 53/tcp   open  domain      ISC BIND 9.4.2
[*] Nmap: 80/tcp   open  http        Apache httpd 2.2.8 ((Ubuntu) DAV/2)
[*] Nmap: 111/tcp  open  rpcbind     2 (RPC #100000)
[*] Nmap: 139/tcp  open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
[*] Nmap: 445/tcp  open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
[*] Nmap: 512/tcp  open  exec        netkit-rsh rexecd
[*] Nmap: 513/tcp  open  login       OpenBSD or Solaris rlogind
[*] Nmap: 514/tcp  open  shell       Netkit rshd
[*] Nmap: 1099/tcp open  java-rmi    GNU Classpath grmiregistry
[*] Nmap: 1524/tcp open  bindshell   Metasploitable root shell
[*] Nmap: 2049/tcp open  nfs         2-4 (RPC #100003)
[*] Nmap: 2121/tcp open  ftp         ProFTPD 1.3.1
[*] Nmap: 3306/tcp open  mysql       MySQL 5.0.51a-3ubuntu5
[*] Nmap: 5432/tcp open  postgresql  PostgreSQL DB 8.3.0 - 8.3.7
[*] Nmap: 5900/tcp open  vnc         VNC (protocol 3.3)
[*] Nmap: 6000/tcp open  X11         (access denied)
[*] Nmap: 6667/tcp open  irc         UnrealIRCd
[*] Nmap: 8009/tcp open  ajp13       Apache Jserv (Protocol v1.3)
[*] Nmap: 8180/tcp open  http        Apache Tomcat/Coyote JSP engine 1.1
[*] Nmap: MAC Address: 08:00:27:22:00:BD (Oracle VirtualBox virtual NIC)
[*] Nmap: Service Info: Hosts:  metasploitable.localdomain, irc.Metasploitable.LAN; OSs: Unix, Linux; CPE: cpe:/o:li
nux:linux_kernel
[*] Nmap: Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
[*] Nmap: Nmap done: 1 IP address (1 host up) scanned in 25.27 seconds
msf6 auxiliary(scanner/portscan/tcp) >
```

Si además queremos más información podemos añadir el flag -A:

```
db_nmap -sV -A <ip_maquina_objetivo>
```

```
msf6 auxiliary(scanner/portscan/tcp) > db_nmap -sV -A 192.168.56.9
[*] Nmap: Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-02 11:23 EDT
[*] Nmap: Nmap scan report for 192.168.56.9
[*] Nmap: Host is up (0.00072s latency).
[*] Nmap: Not shown: 977 closed tcp ports (reset)
[*] Nmap: PORT     STATE SERVICE     VERSION
[*] Nmap: 21/tcp   open  ftp         vsftpd 2.3.4
[*] Nmap: |_ftp-anon: Anonymous FTP login allowed (FTP code 230)
[*] Nmap: | ftp-syst:
[*] Nmap: |   STAT:
[*] Nmap: | FTP server status:
[*] Nmap: |      Connected to 192.168.56.102
[*] Nmap: |      Logged in as ftp
[*] Nmap: |      TYPE: ASCII
[*] Nmap: |      No session bandwidth limit
[*] Nmap: |      Session timeout in seconds is 300
[*] Nmap: |      Control connection is plain text
[*] Nmap: |      Data connections will be plain text
[*] Nmap: |      vsFTPd 2.3.4 - secure, fast, stable
[*] Nmap: |_End of status
[*] Nmap: 22/tcp   open  ssh         OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
[*] Nmap: | ssh-hostkey:
[*] Nmap: |   1024 60:0f:cf:e1:c0:5f:6a:74:d6:90:24:fa:c4:d5:6c:cd (DSA)
[*] Nmap: |_  2048 56:56:24:0f:21:1d:de:a7:2b:ae:61:b1:24:3d:e8:f3 (RSA)
[*] Nmap: 23/tcp   open  telnet      Linux telnetd
[*] Nmap: 25/tcp   open  smtp        Postfix smtpd
[*] Nmap: | ssl-cert: Subject: commonName=ubuntu804-base.localdomain/organizationName=OCOSA/stateOrProvinceName=There is no such thing outside US/countryName=XX
[*] Nmap: | Not valid before: 2010-03-17T14:07:45
[*] Nmap: |_Not valid after:  2010-04-16T14:07:45
[*] Nmap: |_smtp-commands: metasploitable.localdomain, PIPELINING, SIZE 10240000, VRFY, ETRN, STARTTLS, ENHANCEDSTATUSCODES, 8BITMIME, DSN
[*] Nmap: |_ssl-date: 2025-05-02T15:23:44+00:00; 0s from scanner time.
[*] Nmap: | sslv2:
[*] Nmap: |   SSLv2 supported
[*] Nmap: |   ciphers:
[*] Nmap: |     SSL2_RC4_128_WITH_MD5
[*] Nmap: |     SSL2_RC2_128_CBC_WITH_MD5
[*] Nmap: |     SSL2_DES_192_EDE3_CBC_WITH_MD5
```