FreeFloat FTP Server Exploit - PoC

Attacker Machine - Kali Linux version 3.30.2

Target Machine - Windows 7 Ultimate (FTP server)

Vulnerability - CVE-2012-5106 (Execute Code Overflow)

In this document, I am presenting a simple buffer overflow attack to a FTP server. I am using Immunity Debugger software for this exploit.

1. Run the FTP server

As the first step, I run the FTP server and attached it to immunity debugger.

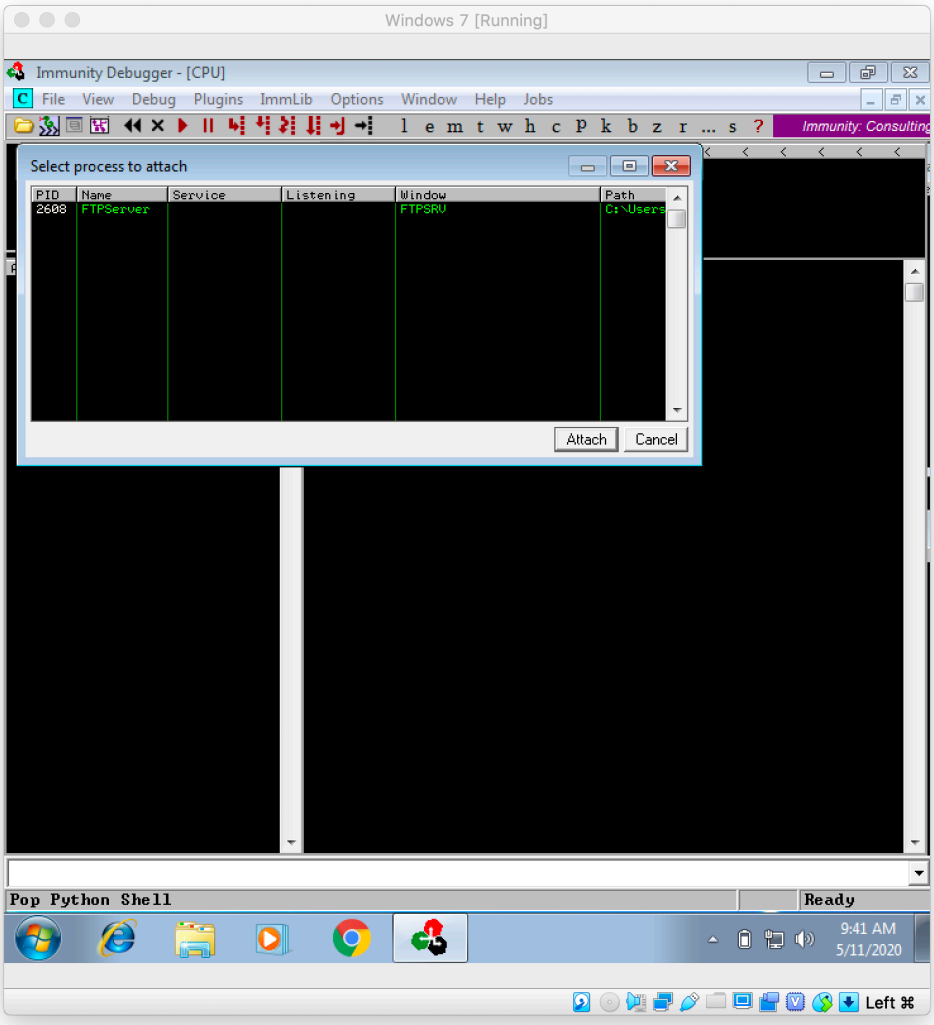


Figure 1 - Attaching FTP server to immunity debugger

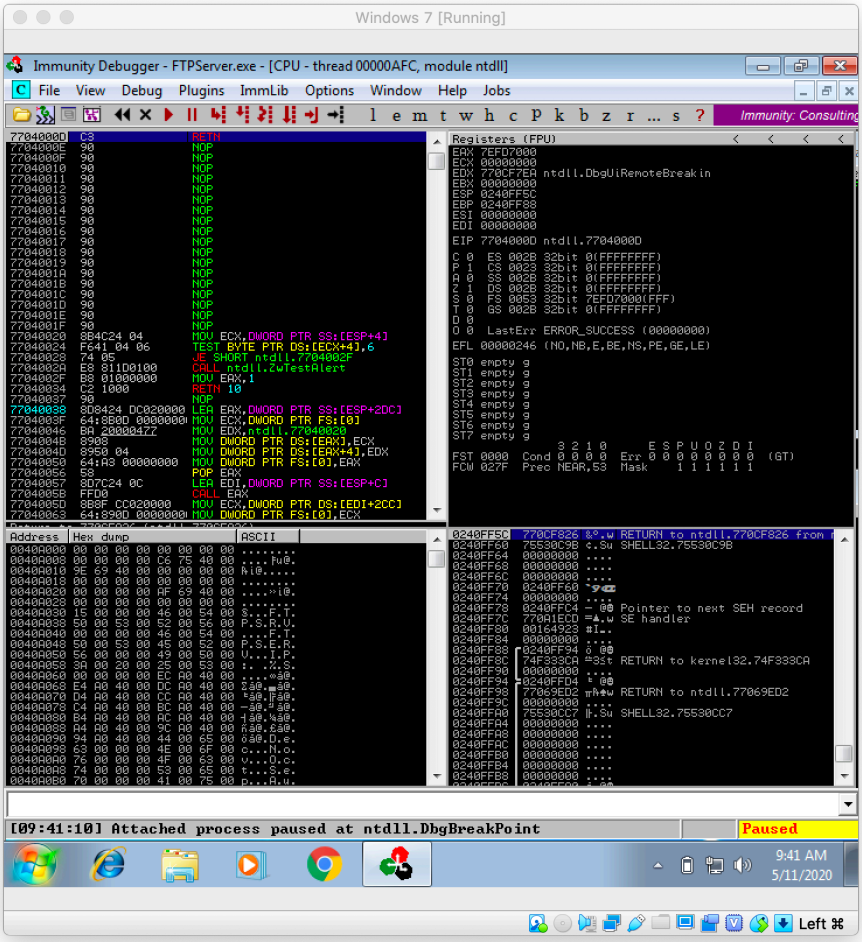
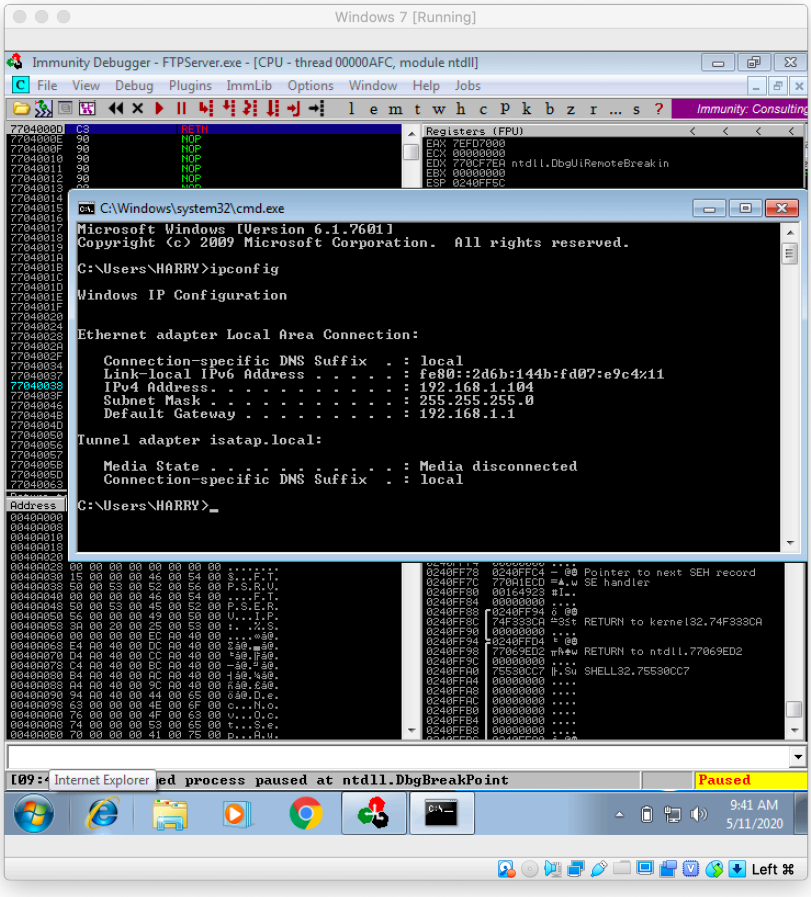


Figure 2 - After attached the server

2. Check for the open ports.

In this step, first of all I want to know the IP address of the target machine. As in the below figure, "ipconfig" command can be used for that.



After that, we can use “nmap <ip address>” command on Kali machine to get details about open ports.

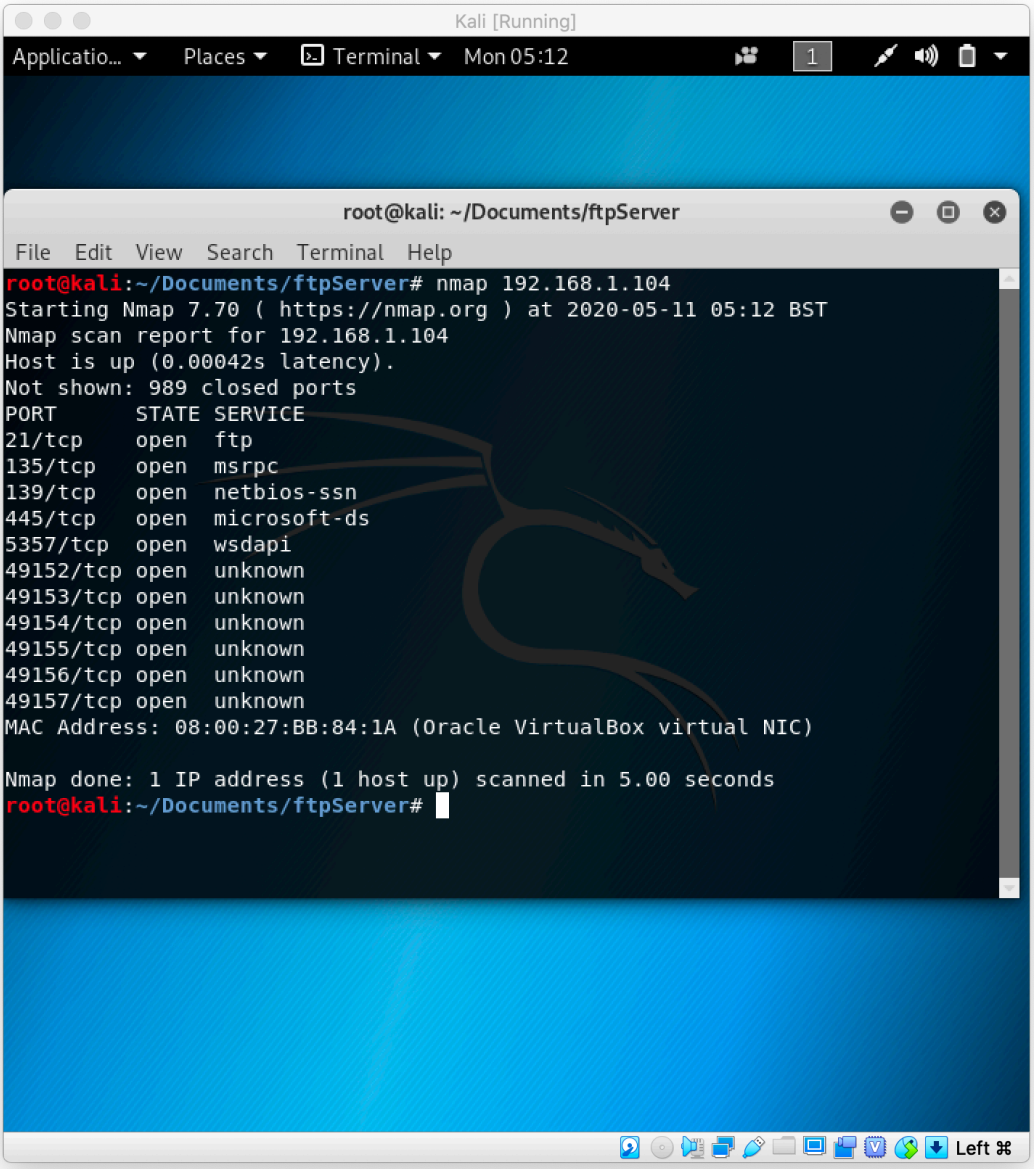


Figure 4 - Open ports for in the target IP address

As shown in the above figure, port 21(ftp) is an open port. So, we can do this attack using that port.

4. Write a code to do the exploitation.

Use a simple python script to do the buffer overflow attack.

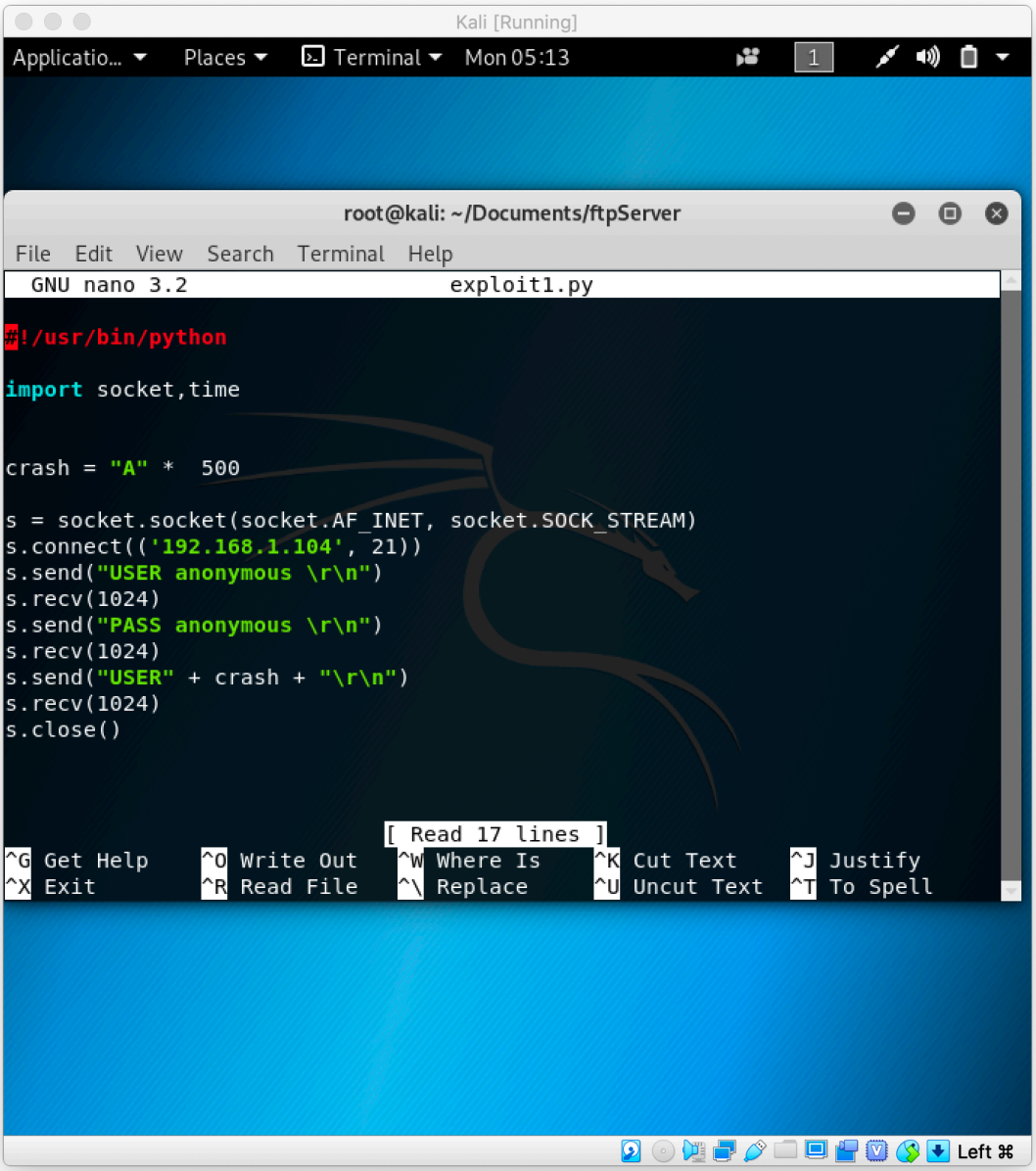


Figure 5 - Python Script

In this python script, first line is to specifying the location to the python executable in our machine.
Then import the socket library and the time library.
The next line is our payload. It is creating a variable called “crash” and include 500 “A”s for that. So, we use 500 “A”s as our payload.
Then create a socket object.
The next line is to build the connection with the target server. IP address of the target and the port number is passed as parameters.
In the next lines, a USERNAME and PASSWORD is sent to the server. This is like, login to the server and then execute the payload.

Then send the payload created before (‘crash’).

5. Run the code.

As the next step, we can run the python script we created and see what happens.

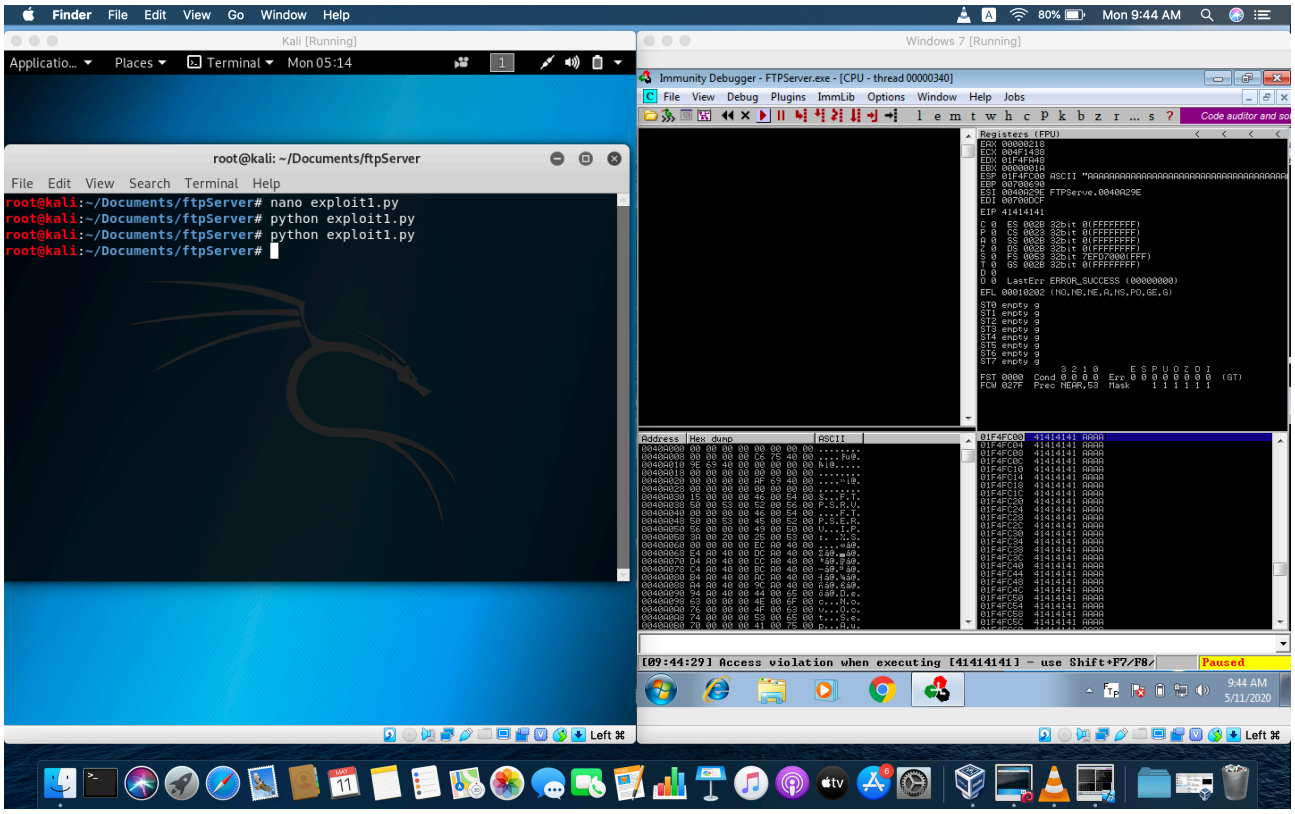


Figure 6 - Run the python script

As shown in the figure, when we run the python script, the ftp server was crashed.