

Lab # 10.3 — Assessment Worksheet

Course Name and Number: FRS301

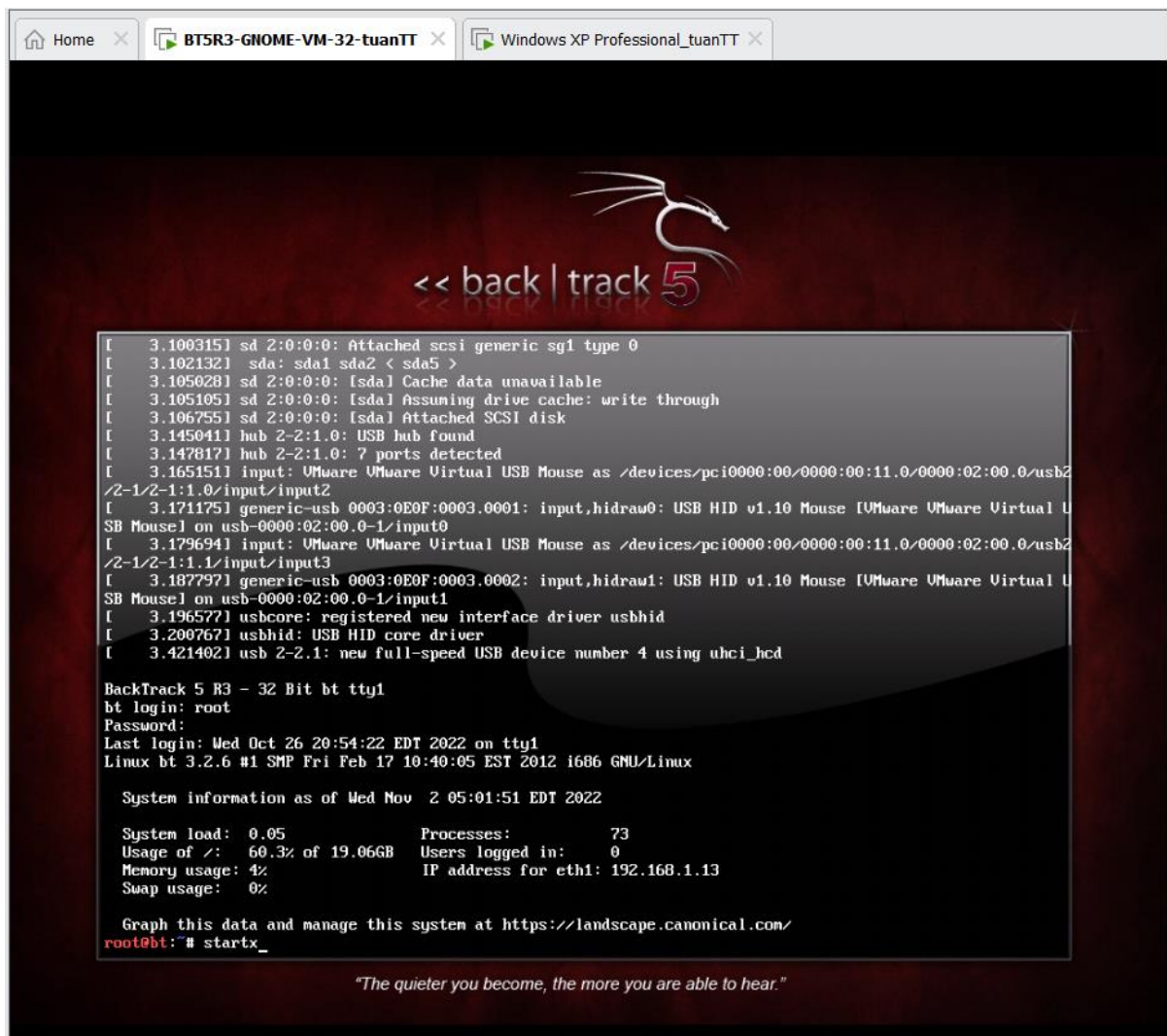
Student Name: Tran Thanh Tuan

Student Id: SE161095

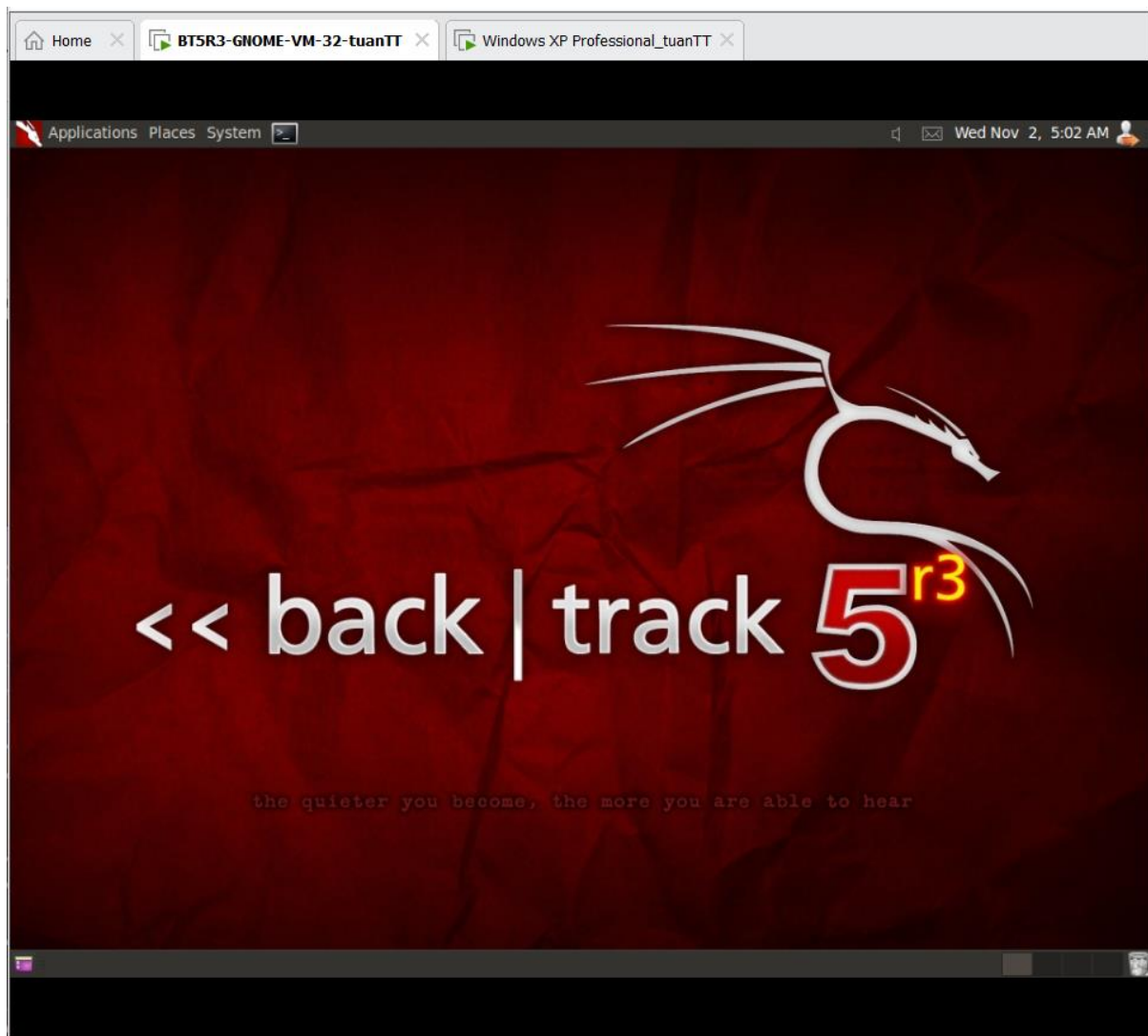
Instructor Name: Nguyen Van Vinh

Analyzing A SET Memory Capture from Windows XP SP2

Section 1. Login to BackTrack

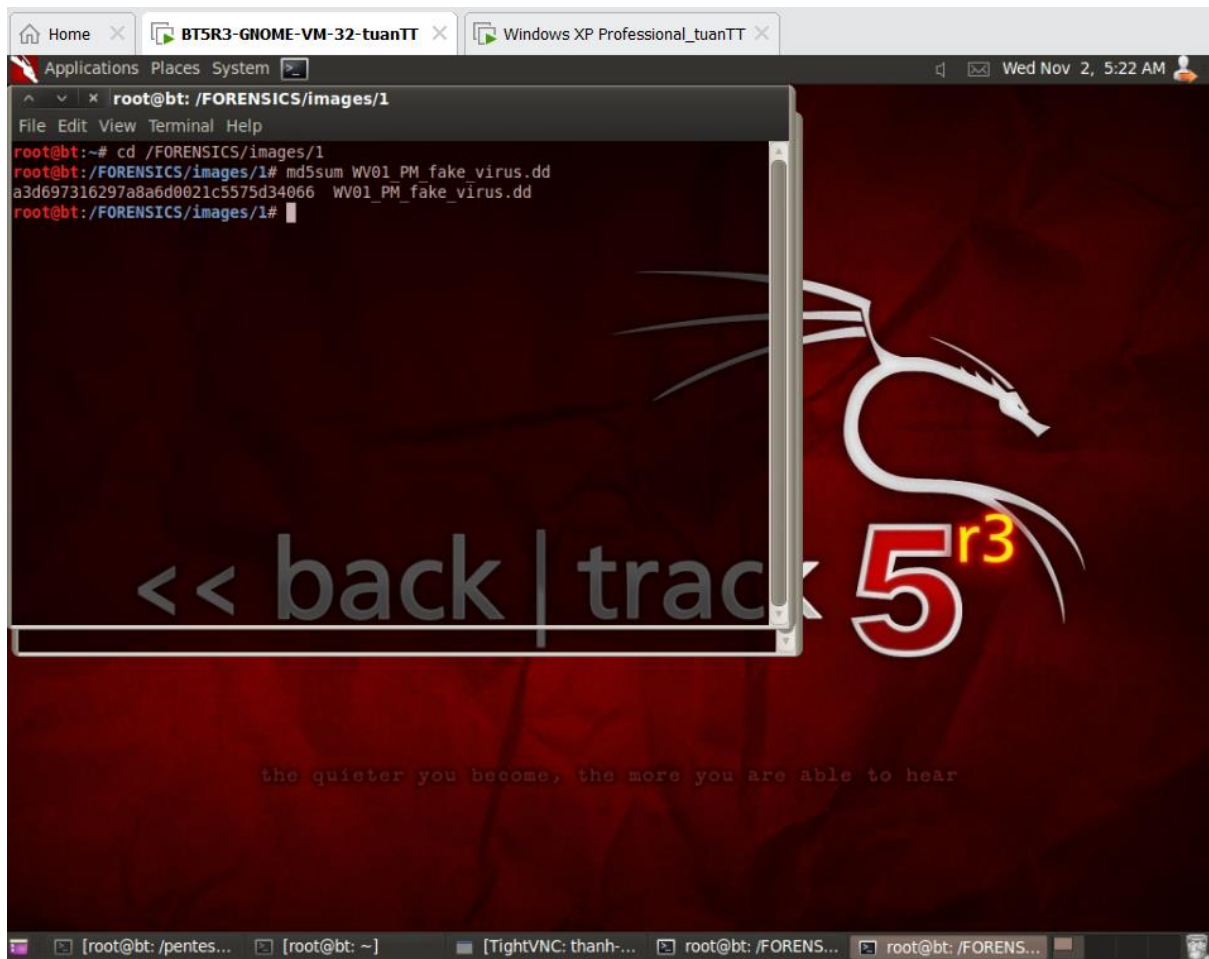


Section 2. Bring up a console terminal

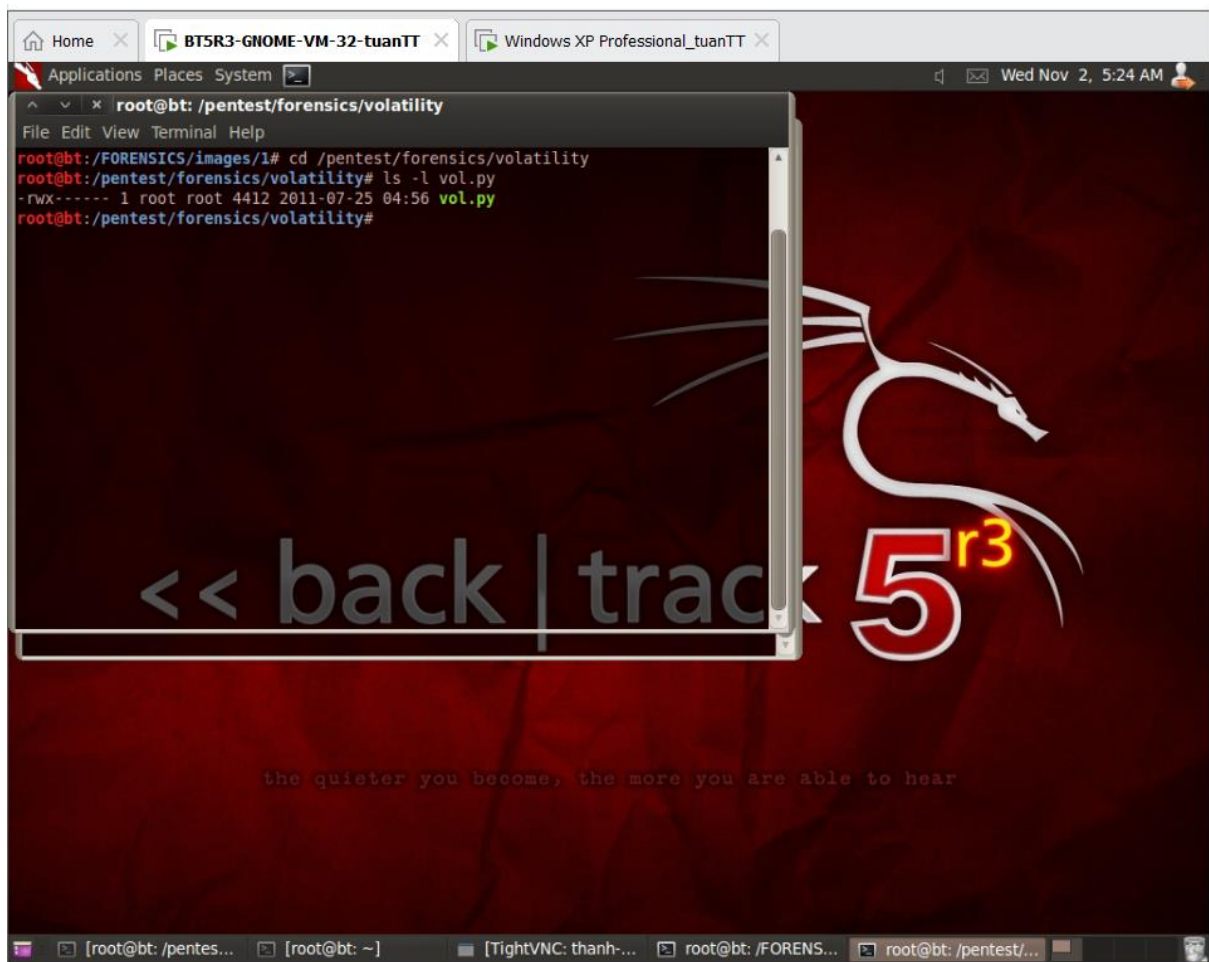


Section 3. Using Volatility

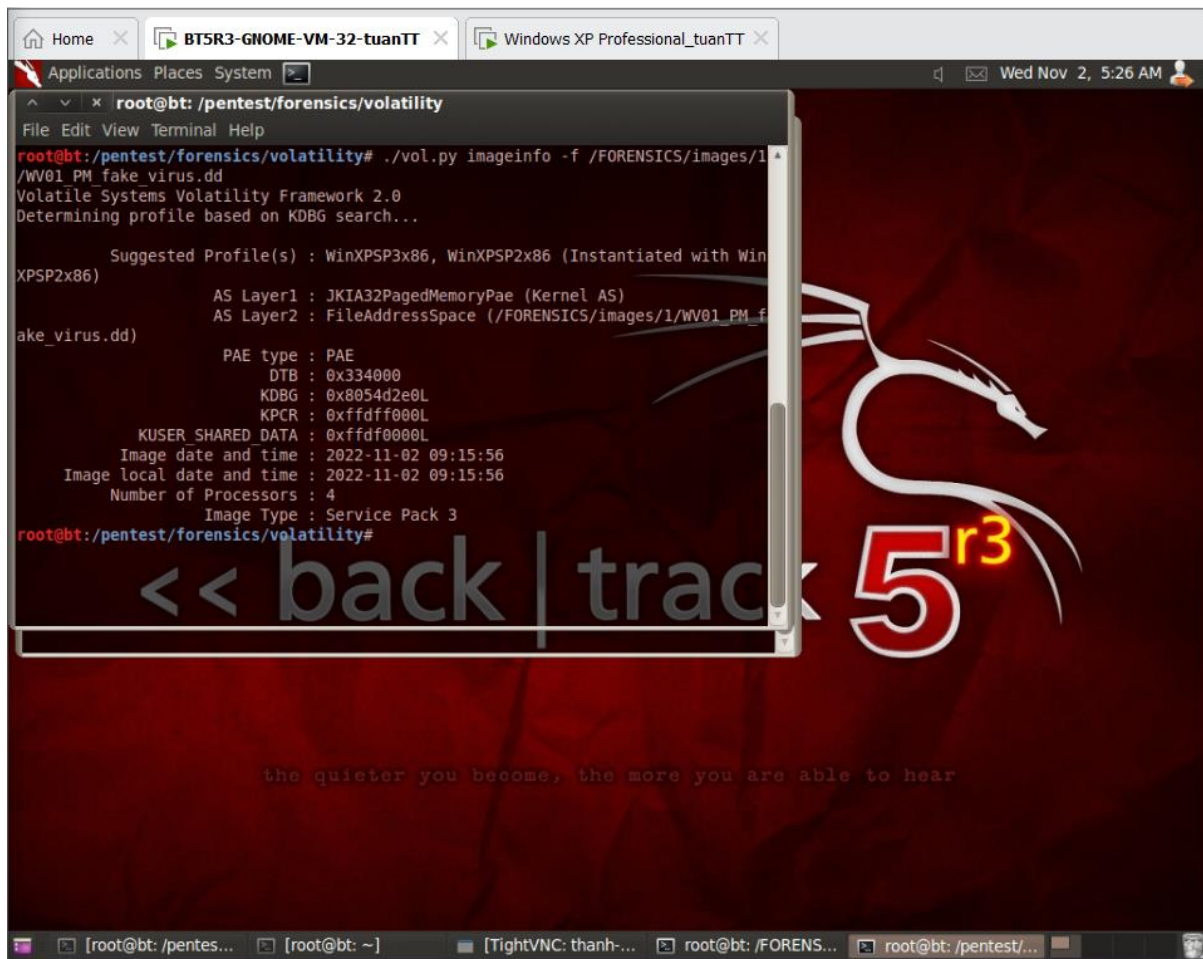
1. Navigate to Forensic Image



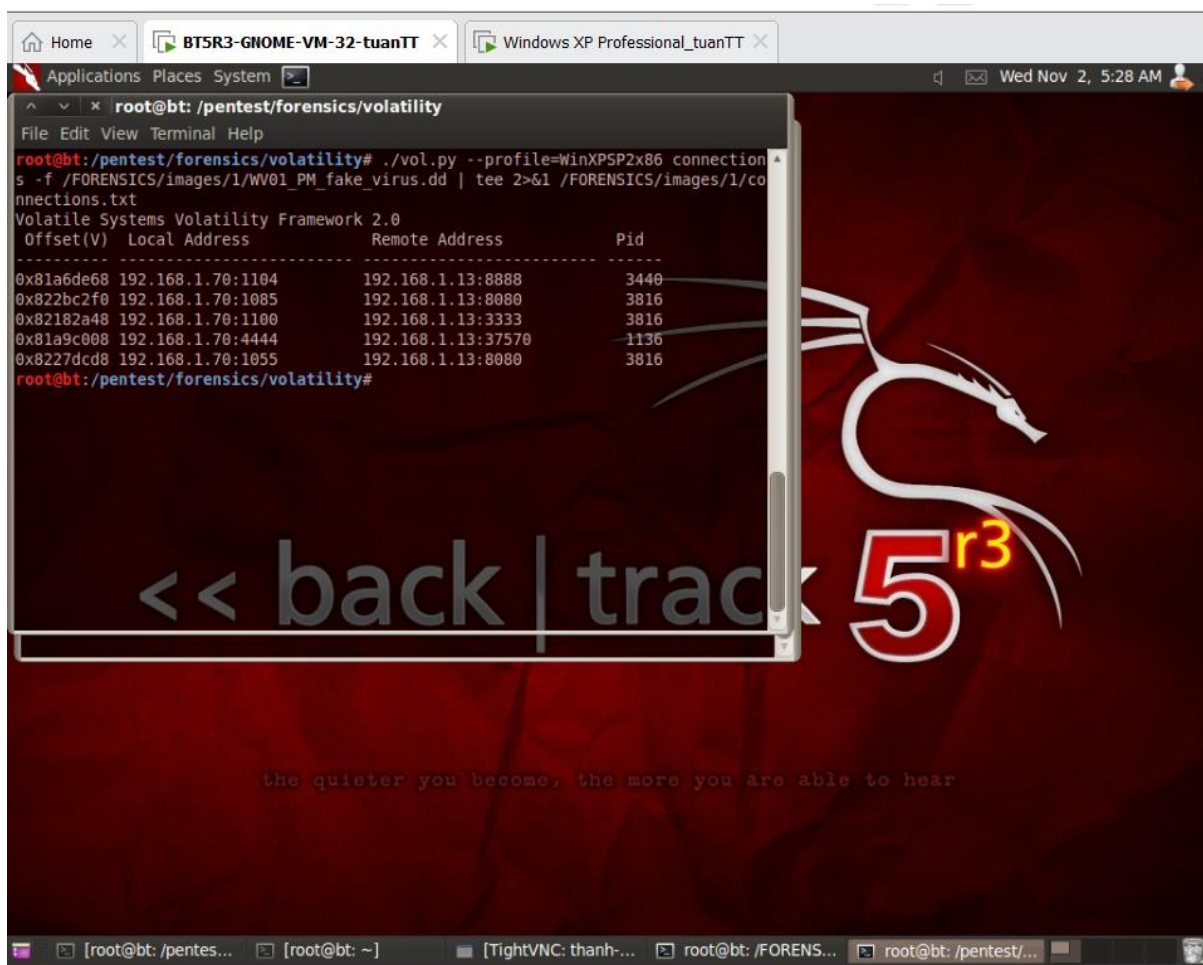
2. Navigate to Volatility



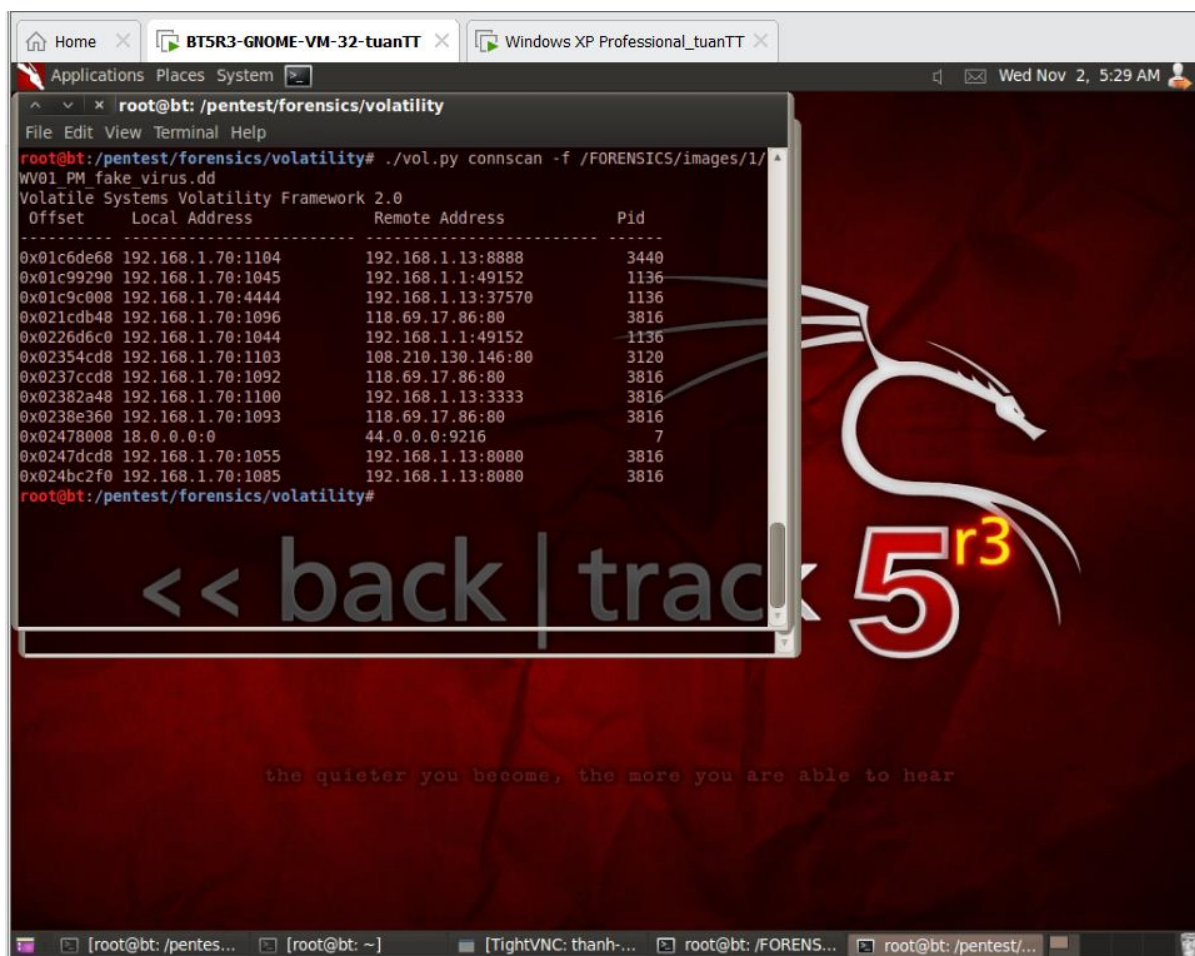
3. Obtain the image profile



4. View Open Connections with Volatility



5. View Open and Dead Connections with Volatility



6. View Processes with Volatility

Home x BT5R3-GNOME-VM-32-tuanTT x Windows XP Professional_tuanTT x

Applications Places System

root@bt: /pentest/forensics/volatility

File Edit View Terminal Help

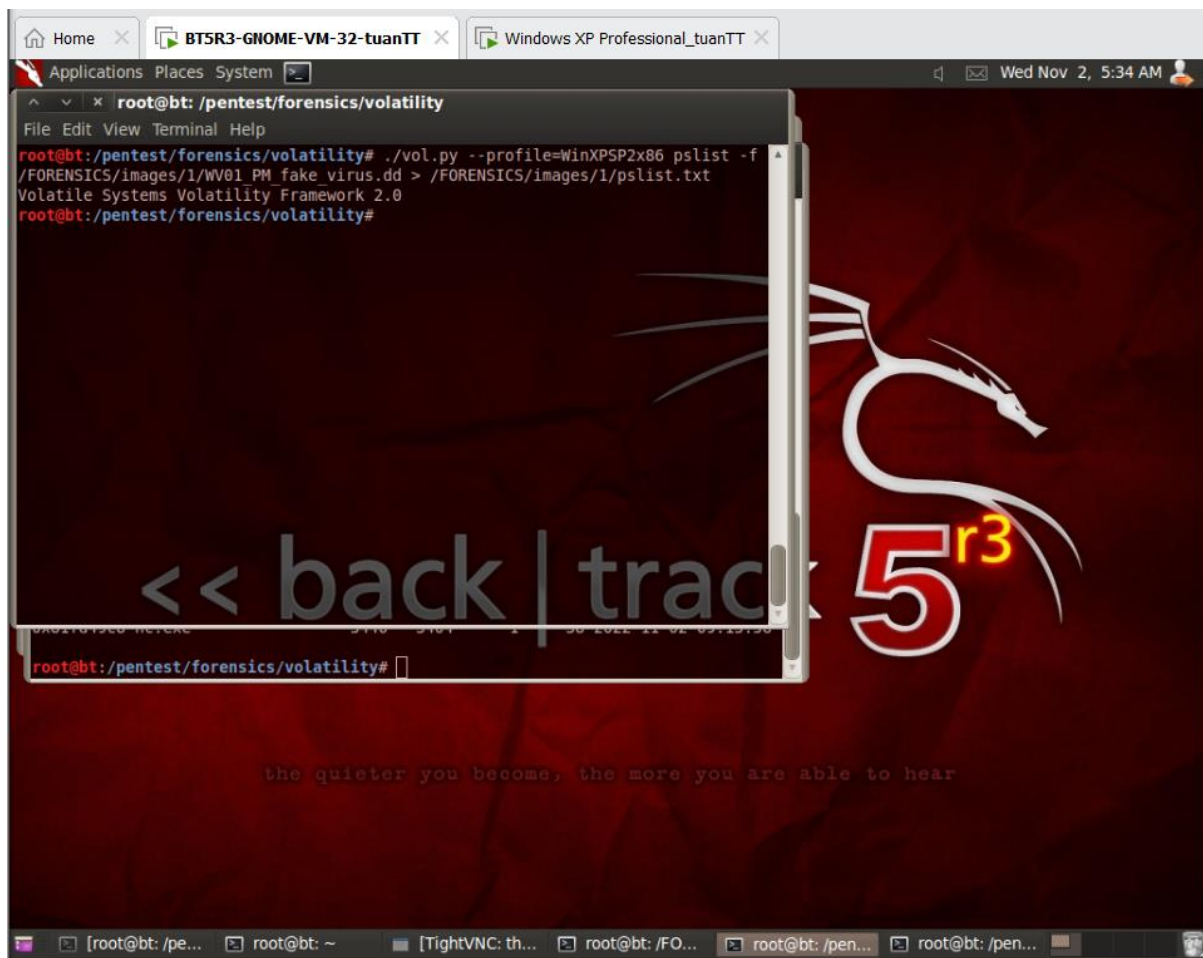
```
root@bt:/pentest/forensics/volatility# ./vol.py --profile=WinXPSP2x86 pslist -f
/FORENSICS/images/1/WV01_PM_fake_virus.dd | egrep '{0ff|^---[3816|3440|1136|3028
})'
```

Volatile Systems Volatility Framework 2.0

Offset(V)	Name	PID	PPID	Thds	Hnds	Time
0x81e45978	svchost.exe	1136	740	74	6690	2022-11-02-08:59:35
0x82102c10	wscntfy.exe	1660	1136	1	28	2022-11-02 09:00:18
0x82313208	IEXPLORE.EXE	3816	1732	7	440	2022-11-02 09:07:17
0x81a83da0	notepad.exe	1740	3816	1	115	2022-11-02 09:07:44
0x81f0b658	cmd.exe	2864	1136	1	31	2022-11-02 09:09:44
0x82114020	helix.exe	3028	1732	8	179	2022-11-02 09:15:03
0x81a93640	wmic.exe	2976	3028	0	-----	2022-11-02 09:15:24
0x81eda498	cmd.exe	3404	3028	1	32	2022-11-02 09:15:55
0x81fd49c8	nc.exe	3440	3404	1	38	2022-11-02 09:15:56

```
root@bt:/pentest/forensics/volatility# clear
```

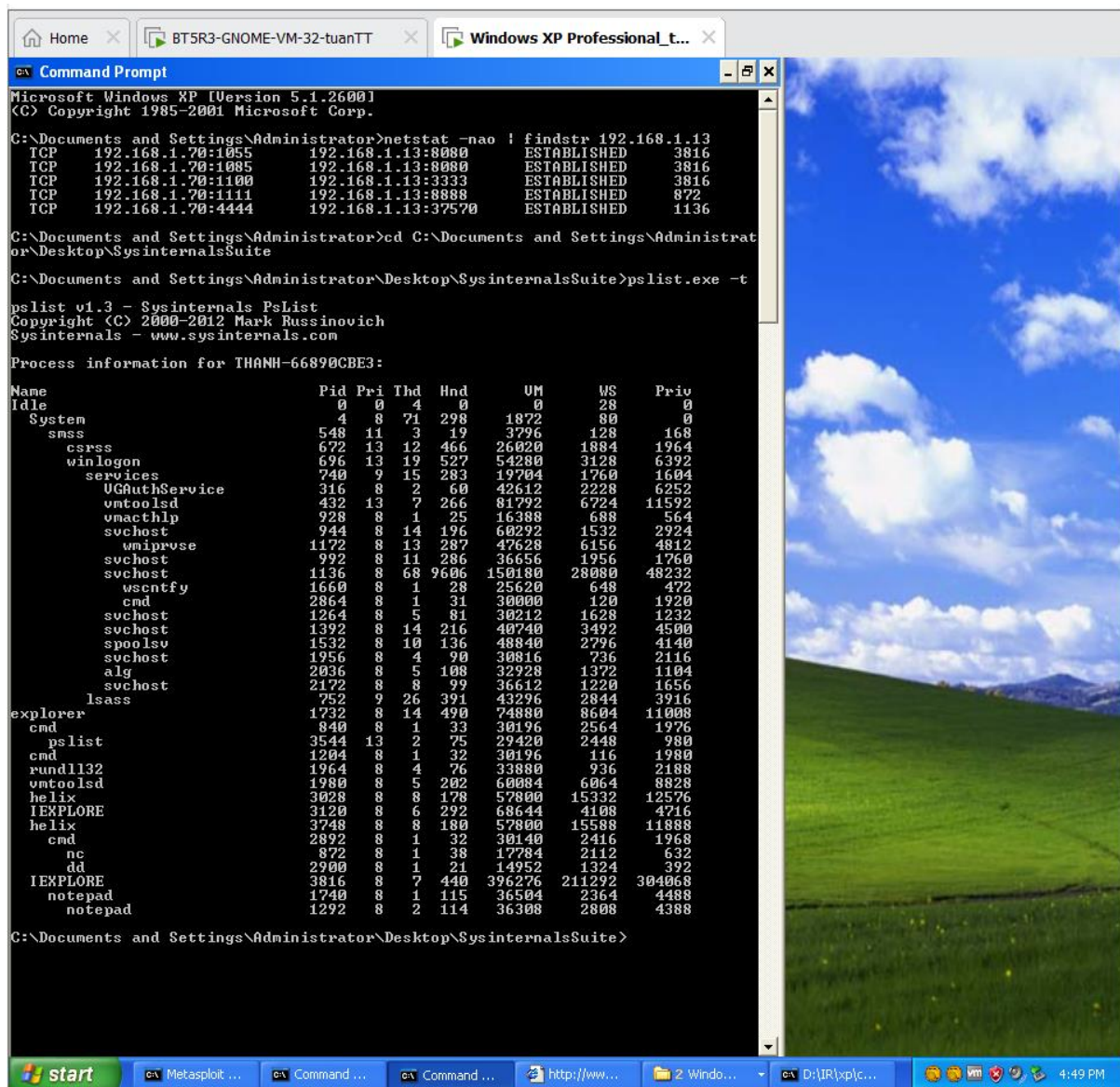
<< back | track 5r3



7. View Open Connections with Volatility

```
root@bt: /pentest/forensics/volatility
File Edit View Terminal Help
root@bt: /pentest/forensics/volatility# ./vol.py pstree -f /FORENSICS/images/1/WV
01 PM fake virus.dd | grep -v vmtoolsd | egrep '^Name|3816|1136|3028)' | tee 2>
&1 /FORENSICS/images/1/pstree.txt
Volatile Systems Volatility Framework 2.0
Name                               Pid  PPid  Thds  Hnds  Time
.... 0x81E45978:svchost.exe         1136   740    74   6690 2022-11-
02 08:59:35
.... 0x82102C10:wscntfy.exe         1660   1136    1    28 2022-11-
02 09:00:18
.... 0x81F0B658:cmd.exe             2864   1136    1    31 2022-11-
02 09:09:44
. 0x82114020:helix.exe              3028   1732    8   179 2022-11-
02 09:15:03
.. 0x81A93640:wmic.exe              2976   3028    0  ----- 2022-11-
02 09:15:24
.. 0x81EDA498:cmd.exe               3404   3028    1    32 2022-11-
02 09:15:55
. 0x82313208:IEXPLORE.EXE          3816   1732    7   440 2022-11-
02 09:07:17
.. 0x81A83DA0:notepad.exe           1740   3816    1   115 2022-11-
02 09:07:44
root@bt: /pentest/forensics/volatility#
```

8. Comparing Volatility to netstat and pslist on the Victim Machine



9. Let's Analyze what the Attacker's Network Connections

Home x BTSR3-GNOME-VM-32-tuanTT x Windows XP Professional_tuanTT x

Applications Places System

root@bt: ~

root@bt: /FORENSICS/images/1

File Edit View Terminal Help

root@bt: ~

File Edit View Terminal Help

```
root@bt:~# netstat -nap | egrep '(192.168.1|127.0.0)'
tcp      0      0 192.168.1.13:3333    0.0.0.0:*        LISTEN    1767/ruby
tcp      0      0 127.0.0.1:7337       0.0.0.0:*        LISTEN    911/postgres.bin
tcp      0      0 192.168.1.13:6666    0.0.0.0:*        LISTEN    1767/ruby
tcp      0      0 127.0.0.1:5900       0.0.0.0:*        LISTEN    1767/ruby
tcp      0      0 192.168.1.13:7777    0.0.0.0:*        LISTEN    1767/ruby
tcp      0      0 192.168.1.13:8080    192.168.1.70:1085 ESTABLISHED 1767/ruby
tcp      0      0 192.168.1.13:3333    192.168.1.70:1100 ESTABLISHED 1767/ruby
tcp      0      0 127.0.0.1:5900       127.0.0.1:57103  ESTABLISHED 1767/ruby
tcp      0      0 192.168.1.13:8080    192.168.1.70:1055 ESTABLISHED 1767/ruby
tcp      0      0 192.168.1.13:37570   192.168.1.70:4444 ESTABLISHED 1767/ruby
tcp      0      0 127.0.0.1:57103      127.0.0.1:5900  ESTABLISHED 1991/vncviewer
tcp      0      0 192.168.1.13:8888    192.168.1.70:1112 ESTABLISHED 2223/nc
root@bt:~# clear
```

<< back | track 5^{r3}

One quieter you become, the more you are able to hear

Home x BTSR3-GNOME-VM-32-tuanTT x Windows XP Professional_tuanTT x

Applications Places System

root@bt: ~

root@bt: /FORENSICS/images/1

File Edit View Terminal Help

root@bt: ~

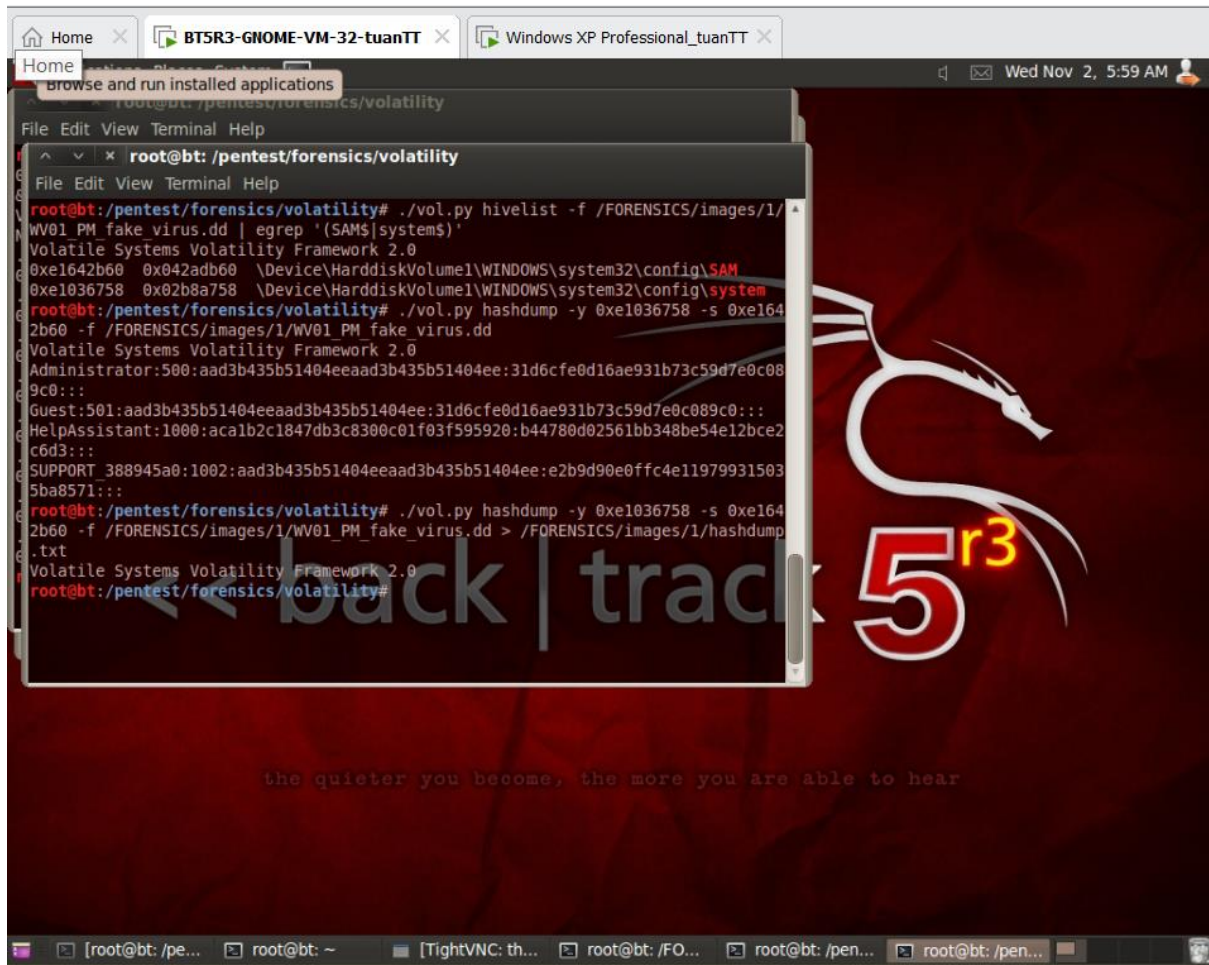
File Edit View Terminal Help

```
root@bt:~# ps -eaf | egrep '(1767|1991|2223)' | grep -v grep
root   1767   1740   7 05:04 pts/2    00:03:44 /usr/bin/ruby /opt/metasploit/msf3//msfconsole -L -n -r /pentest/
exploits/set/src/program_junk/meta_config
root   1991   1767   0 05:09 pts/2    00:00:08 vncviewer 127.0.0.1::5900
root   2223   2009  17 05:53 pts/3    00:00:13 nc -l -vvv -p 8888
root@bt:~#
```

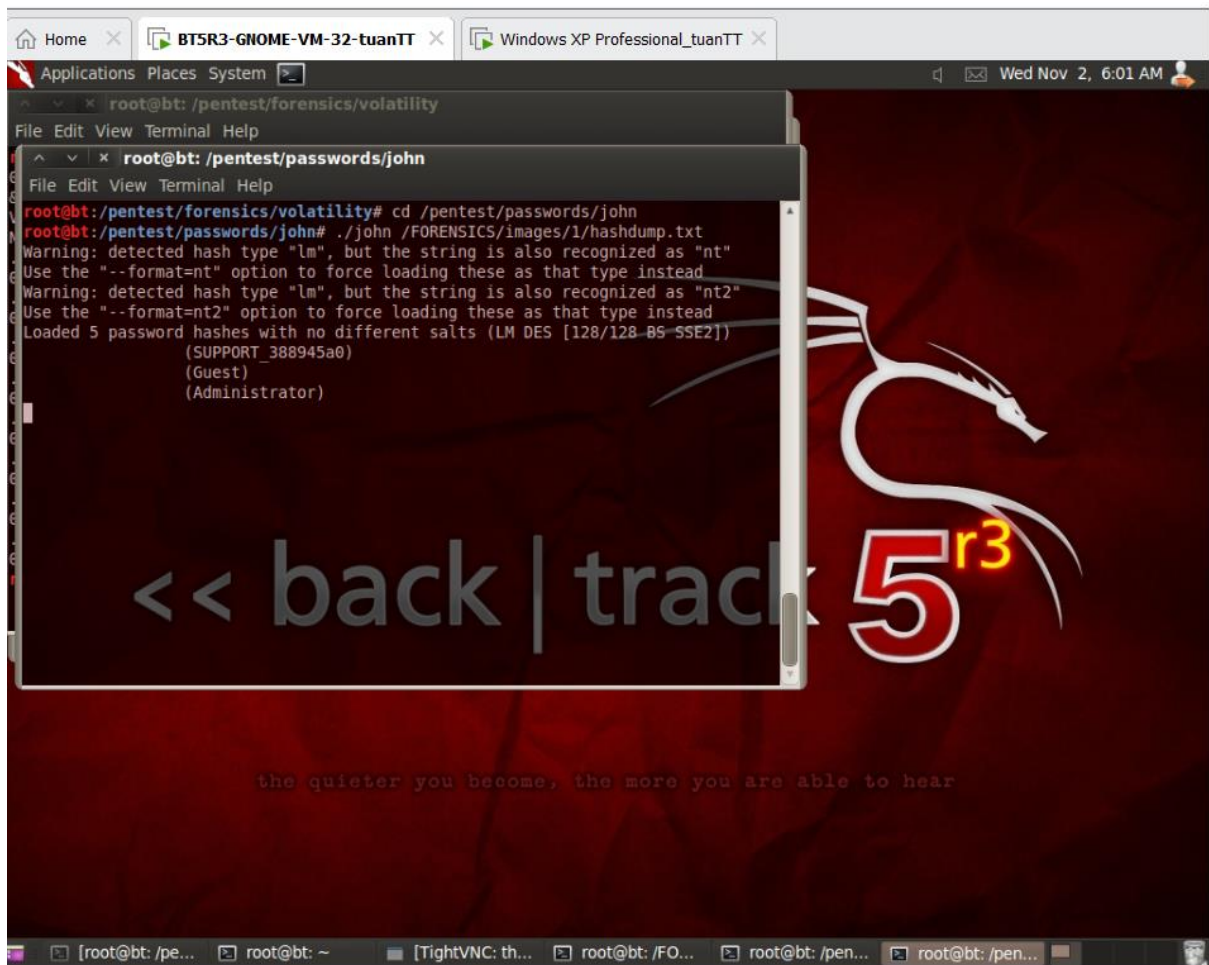
<< back | track 5^{r3}

One quieter you become, the more you are able to hear

10. Using Volatilities' hivelist and hashdump



11. Using John the Ripper to crack the hashdump



Section 4. Proof of Lab

