Student:	Email:
Vishal Singh Bhardvaj	

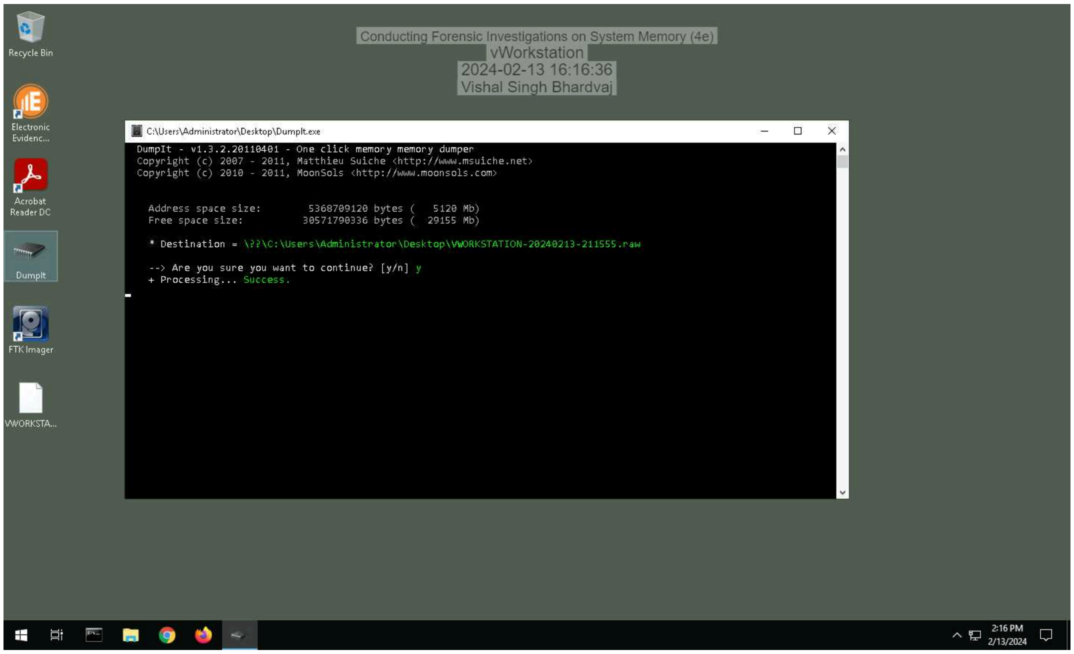
Time on Task:	Progress:
1 hour, 55 minutes	100%

Report Generated: Tuesday, February 13, 2024 at 6:07 PM

Section 1: Hands-On Demonstration

Part 1: Capture Memory using DumpIt

3. **Make a screen capture** showing the **DumpIt success notification**.



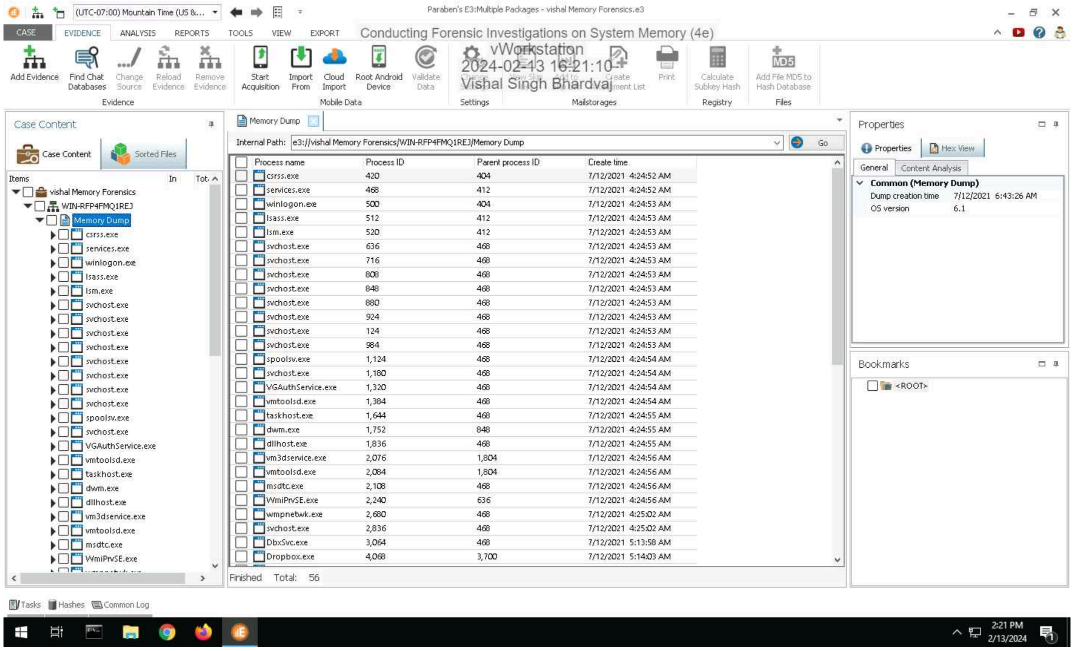
Conducting Forensic Investigations on System Memory (4e)
vWorkstation
2024-02-13 16:16:36
Vishal Singh Bhardvaj

C:\Users\Administrator\Desktop\DumpIt.exe

```
DumpIt - v1.3.2.20110401 - One click memory memory dumper
Copyright (c) 2007 - 2011, Matthieu Suiche <http://www.msuiche.net>
Copyright (c) 2010 - 2011, MoonSols <http://www.moonsols.com>


  Address space size:        5368709120 bytes (   5120 Mb)
  Free space size:          30571790336 bytes (  29155 Mb)

  * Destination = \??\C:\Users\Administrator\Desktop\VWORKSTATION-20240213-211555.raw

  --> Are you sure you want to continue? [y/n] y
  + Processing... Success.
```

Part 2: Analyze Memory using E3

8. **Make a screen capture** showing the **list of processes in the memory dump**.



Internal Path: e3://vishal Memory Forensics/WIN-RFP4FMQ1REJ/Memory Dump

Process name	Process ID	Parent process ID	Create time
csrss.exe	420	404	7/12/2021 4:24:52 AM
services.exe	468	412	7/12/2021 4:24:52 AM
winlogon.exe	500	404	7/12/2021 4:24:53 AM
lsass.exe	512	412	7/12/2021 4:24:53 AM
lsm.exe	520	412	7/12/2021 4:24:53 AM
svchost.exe	636	468	7/12/2021 4:24:53 AM
svchost.exe	716	468	7/12/2021 4:24:53 AM
svchost.exe	808	468	7/12/2021 4:24:53 AM
svchost.exe	848	468	7/12/2021 4:24:53 AM
svchost.exe	880	468	7/12/2021 4:24:53 AM
svchost.exe	924	468	7/12/2021 4:24:53 AM
svchost.exe	124	468	7/12/2021 4:24:53 AM
svchost.exe	984	468	7/12/2021 4:24:53 AM
spoolsv.exe	1,124	468	7/12/2021 4:24:54 AM
svchost.exe	1,180	468	7/12/2021 4:24:54 AM
VGAuthService.exe	1,320	468	7/12/2021 4:24:54 AM
vmtoolsd.exe	1,384	468	7/12/2021 4:24:54 AM
taskhost.exe	1,644	468	7/12/2021 4:24:55 AM
dwm.exe	1,752	848	7/12/2021 4:24:55 AM
dllhost.exe	1,836	468	7/12/2021 4:24:55 AM
vm3dservice.exe	2,076	1,804	7/12/2021 4:24:56 AM
vmtoolsd.exe	2,084	1,804	7/12/2021 4:24:56 AM
msdtc.exe	2,108	468	7/12/2021 4:24:56 AM
WmiPrvSE.exe	2,240	636	7/12/2021 4:24:56 AM
wmpnetwk.exe	2,680	468	7/12/2021 4:25:02 AM
svchost.exe	2,836	468	7/12/2021 4:25:02 AM
DbxSvc.exe	3,064	468	7/12/2021 5:13:58 AM
Dropbox.exe	4,068	3,700	7/12/2021 5:14:03 AM

Finished Total: 56

Common (Memory Dump)

Dump creation time	7/12/2021 6:43:26 AM
OS version	6.1

10. **Record** the start times for the oldest process and the newest process.

Start time of Oldest process:- System 7/12/2021 4:24:49 AM

Start time of newest process:- conhost.exe- 7/12/2021 6:42:43 AM

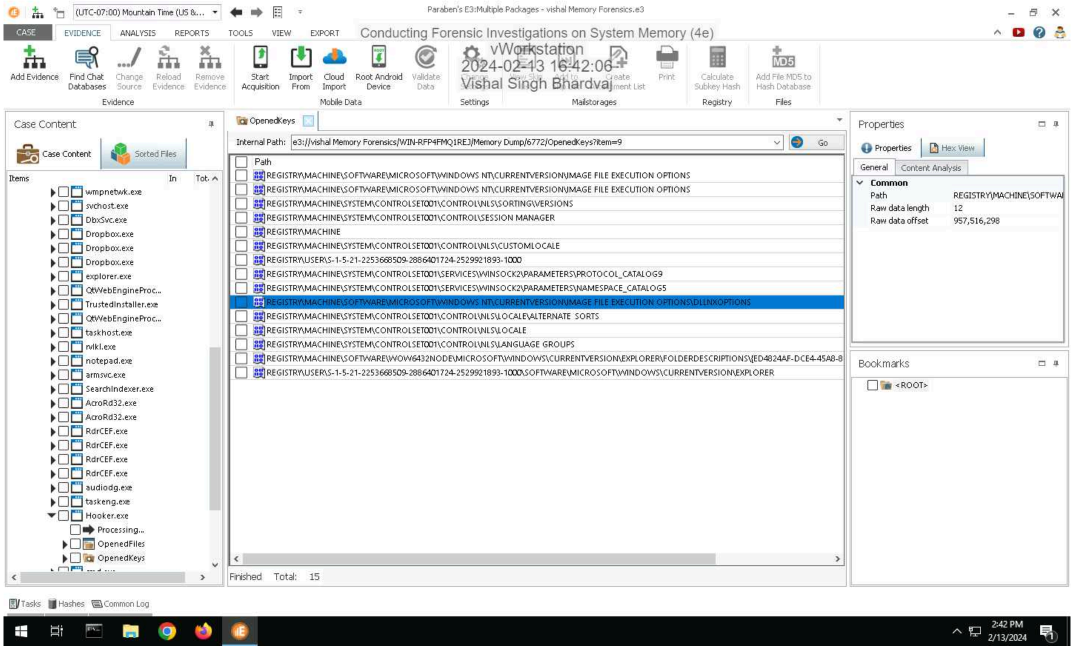
15. **Document** your findings for the conhost.exe process. What is it and what is it used for?

conhost.exe is a genuine file in Windows 7 onwards. It is related to Console Windows Host. However it has been found that writers of malware program named their viruses, worms etc. on this name to evade detection.

17. **Document** your findings for the hooker.exe process. What is it and what is it used for?

hooker.exe is used as a trojan and keylogger. It is not a windows system file. It is able to connect to internet, record keyboard and mouse inputs and monitor applications. Therefore its technical security rating is 100% dangerous.

21. **Make a screen capture** showing the **registry keys opened by the Hooker.exe process**.



Conducting Forensic Investigations on System Memory (4e)
vWorkstation
2024-02-13 16:42:06 -
Vishal Singh Bhardvaj

Items | In | Tot.

- □ wmpnetwk.exe
- □ svchost.exe
- □ DbxSvc.exe
- □ Dropbox.exe
- □ Dropbox.exe
- □ Dropbox.exe
- □ explorer.exe
- □ QtWebEngineProc...
- □ TrustedInstaller.exe
- □ QtWebEngineProc...
- □ taskhost.exe
- □ rvlkl.exe
- □ notepad.exe
- □ armsvc.exe
- □ SearchIndexer.exe
- □ AcroRd32.exe
- □ AcroRd32.exe
- □ RdrCEF.exe
- □ RdrCEF.exe
- □ RdrCEF.exe
- □ RdrCEF.exe
- □ audiodg.exe
- □ taskeng.exe
- □ Hooker.exe
    - □ Processing...
    - □ OpenedFiles
    - □ OpenedKeys

OpenedKeys

Internal Path: e3://vishal Memory Forensics/WIN-RFP4FMQ1REJ/Memory Dump/6772/OpenedKeys?item=9 Go

□	Path
□	REGISTRY\MACHINE\SOFTWARE\MICROSOFT\WINDOWS NT\CURRENTVERSION\IMAGE FILE EXECUTION OPTIONS
□	REGISTRY\MACHINE\SOFTWARE\MICROSOFT\WINDOWS NT\CURRENTVERSION\IMAGE FILE EXECUTION OPTIONS
□	REGISTRY\MACHINE\SYSTEM\CONTROLSET001\CONTROL\NLS\SORTING\VERSIONS
□	REGISTRY\MACHINE\SYSTEM\CONTROLSET001\CONTROL\SESSION MANAGER
□	REGISTRY\MACHINE
□	REGISTRY\MACHINE\SYSTEM\CONTROLSET001\CONTROL\NLS\CUSTOMLOCALE
□	REGISTRY\USER\S-1-5-21-2253668509-2886401724-2529921893-1000
□	REGISTRY\MACHINE\SYSTEM\CONTROLSET001\SERVICES\WINSOCK2\PARAMETERS\PROTOCOL_CATALOG9
□	REGISTRY\MACHINE\SYSTEM\CONTROLSET001\SERVICES\WINSOCK2\PARAMETERS\NAMESPACE_CATALOG5
□	REGISTRY\MACHINE\SOFTWARE\MICROSOFT\WINDOWS NT\CURRENTVERSION\IMAGE FILE EXECUTION OPTIONS\DLLNXOPTIONS
□	REGISTRY\MACHINE\SYSTEM\CONTROLSET001\CONTROL\NLS\LOCALE\ALTERNATE SORTS
□	REGISTRY\MACHINE\SYSTEM\CONTROLSET001\CONTROL\NLS\LOCALE
□	REGISTRY\MACHINE\SYSTEM\CONTROLSET001\CONTROL\NLS\LANGUAGE GROUPS
□	REGISTRY\MACHINE\SOFTWARE\WOW6432NODE\MICROSOFT\WINDOWS\CURRENTVERSION\EXPLORER\FOLDERDESCRIPTIONS\{ED4824AF-DCE4-45A8-8
□	REGISTRY\USER\S-1-5-21-2253668509-2886401724-2529921893-1000\SOFTWARE\MICROSOFT\WINDOWS\CURRENTVERSION\EXPLORER

Finished Total: 15

Properties

Properties | Hex View

General | Content Analysis

Common

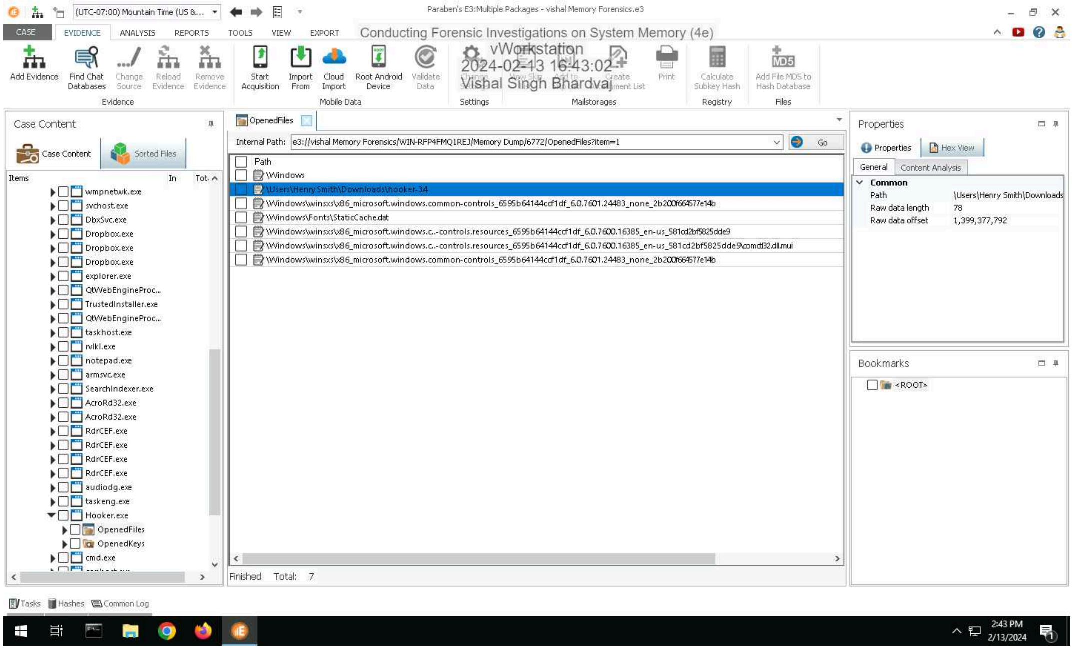
Path	REGISTRY\MACHINE\SOFTWAI
Raw data length	12
Raw data offset	957,516,298

Bookmarks

□ <ROOT>

2:42 PM
2/13/2024

23. **Make a screen capture** showing the **files opened by the hooker.exe process**.



Internal Path: e3://vishal Memory Forensics/WIN-RFP4FMQ1REJ/Memory Dump/6772/OpenedFiles?item=1

□	Path
□	\Windows
□	\Users\Henry Smith\Downloads\hooker-34
□	\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_6.0.7601.24483_none_2b200f664577e14b
□	\Windows\Fonts\StaticCache.dat
□	\Windows\winsxs\x86_microsoft.windows.c..-controls.resources_6595b64144ccf1df_6.0.7600.16385_en-us_581cd2bf5825dde9
□	\Windows\winsxs\x86_microsoft.windows.c..-controls.resources_6595b64144ccf1df_6.0.7600.16385_en-us_581cd2bf5825dde9\comdlg32.dll.mui
□	\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_6.0.7601.24483_none_2b200f664577e14b

Finished Total: 7

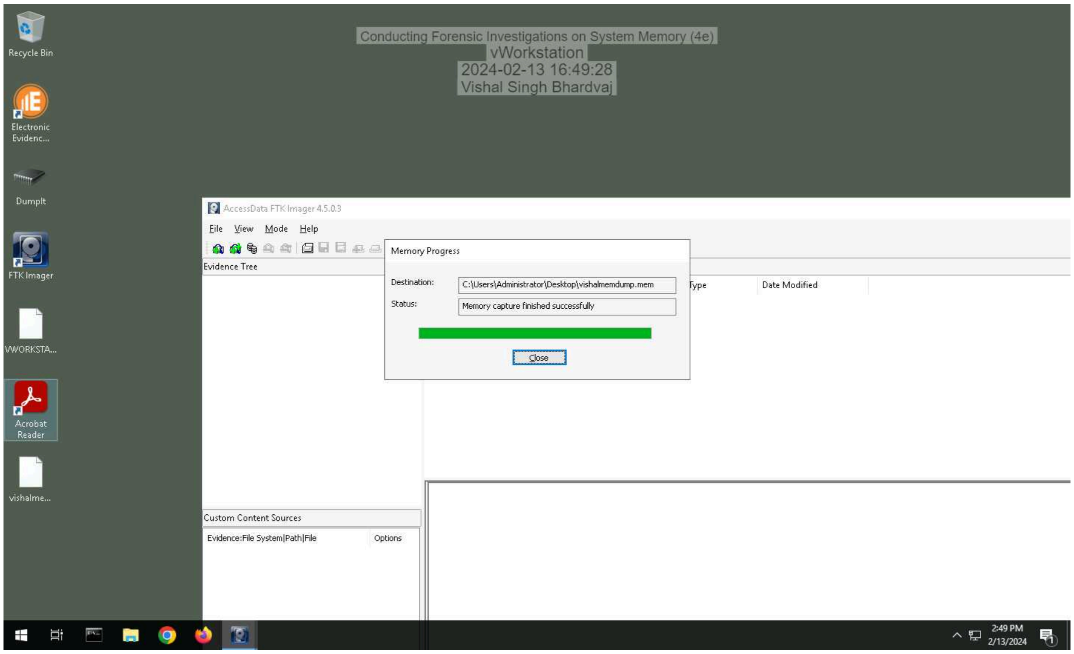
Common

Path	\Users\Henry Smith\Downloads
Raw data length	78
Raw data offset	1,399,377,792

Section 2: Applied Learning

Part 1: Capture Memory using FTK Imager

6. **Make a screen capture** showing the ***Memory capture finished successfully* confirmation.**


Conducting Forensic Investigations on System Memory (4e)
vWorkstation
2024-02-13 16:49:28
Vishal Singh Bhardvaj

AccessData FTK Imager 4.5.0.3

Memory Progress

Destination: C:\Users\Administrator\Desktop\vishalmemdump.mem
Status: Memory capture finished successfully

Part 2: Analyze Memory using Volatility

7. **Document** your findings for the rvlkl.exe process. What is it and what is it used for?

rvlkl.exe is a keylogger and most likely to be dangerous. This is not essential for Windows and will often cause problem. The process is known as revealer Keylogger Free..
It is used to capture keyboard and mouse inputs and monitor applications.

9. **Document** whether any processes are flagged as hidden.

There is no hidden processes as pslist flag is not set to false for any process.

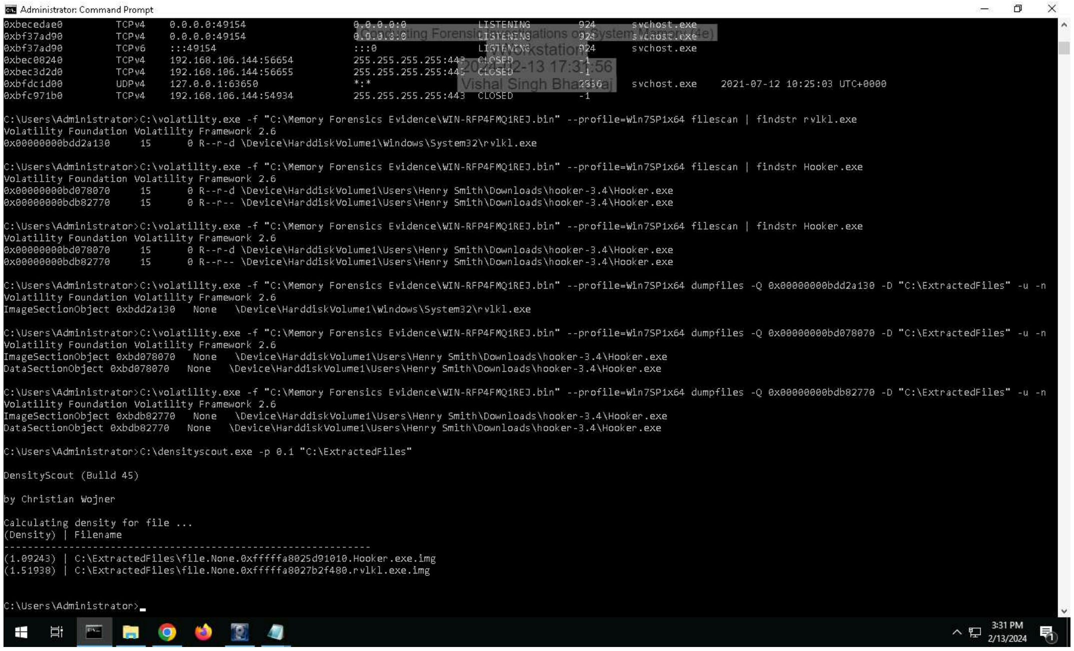
12. **Document** whether the netscan module displays network usage associated with the Hooker.exe or rvlkl.exe processes.

Based on the pid of rvlkl.exe(4224)and hooker.exe(6772) we can say that there processes did not associated network usages

15. **Document** any information you were able to gather about port 56610.

Port 56610 is not allocated to any specific protocol or services. IANA categorizes this port in the dynamic port category.
In general this port can be used for file sharing peer to peer networking but actual usages depend on the linked application.

26. **Make a screen capture** showing the **DensityScout results**.



```
0xbecedae0         TCPv4    0.0.0.0:49154                  0.0.0.0:0              LISTENING        924      svchost.exe
0xbf37ad90         TCPv4    0.0.0.0:49154                  0.0.0.0:0              LISTENING        924      svchost.exe
0xbf37ad90         TCPv6    :::49154                       :::0                   LISTENING        924      svchost.exe
0xbec08240         TCPv4    192.168.106.144:56654          255.255.255.255:443    CLOSED           -1
0xbec3d2d0         TCPv4    192.168.106.144:56655          255.255.255.255:443    CLOSED           -1
0xbfdc1d00         UDPv4    127.0.0.1:63650                *:*                                     2356     svchost.exe    2021-07-12 10:25:03 UTC+0000
0xbfc971b0         TCPv4    192.168.106.144:54934          255.255.255.255:443    CLOSED           -1

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\WIN-RFP4FMQ1REJ.bin" --profile=Win7SP1x64 filescan | findstr rvlkl.exe
Volatility Foundation Volatility Framework 2.6
0x00000000bdd2a130     15      0 R--r-d \Device\HarddiskVolume1\Windows\System32\rvlkl.exe

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\WIN-RFP4FMQ1REJ.bin" --profile=Win7SP1x64 filescan | findstr Hooker.exe
Volatility Foundation Volatility Framework 2.6
0x00000000bd078070     15      0 R--r-d \Device\HarddiskVolume1\Users\Henry Smith\Downloads\hooker-3.4\Hooker.exe
0x00000000bdb82770     15      0 R--r-- \Device\HarddiskVolume1\Users\Henry Smith\Downloads\hooker-3.4\Hooker.exe

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\WIN-RFP4FMQ1REJ.bin" --profile=Win7SP1x64 filescan | findstr Hooker.exe
Volatility Foundation Volatility Framework 2.6
0x00000000bd078070     15      0 R--r-d \Device\HarddiskVolume1\Users\Henry Smith\Downloads\hooker-3.4\Hooker.exe
0x00000000bdb82770     15      0 R--r-- \Device\HarddiskVolume1\Users\Henry Smith\Downloads\hooker-3.4\Hooker.exe

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\WIN-RFP4FMQ1REJ.bin" --profile=Win7SP1x64 dumpfiles -Q 0x00000000bdd2a130 -D "C:\ExtractedFiles" -u -n
Volatility Foundation Volatility Framework 2.6
ImageSectionObject 0xbdd2a130   None   \Device\HarddiskVolume1\Windows\System32\rvlkl.exe

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\WIN-RFP4FMQ1REJ.bin" --profile=Win7SP1x64 dumpfiles -Q 0x00000000bd078070 -D "C:\ExtractedFiles" -u -n
Volatility Foundation Volatility Framework 2.6
ImageSectionObject 0xbd078070   None   \Device\HarddiskVolume1\Users\Henry Smith\Downloads\hooker-3.4\Hooker.exe
DataSectionObject 0xbd078070   None   \Device\HarddiskVolume1\Users\Henry Smith\Downloads\hooker-3.4\Hooker.exe

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\WIN-RFP4FMQ1REJ.bin" --profile=Win7SP1x64 dumpfiles -Q 0x00000000bdb82770 -D "C:\ExtractedFiles" -u -n
Volatility Foundation Volatility Framework 2.6
ImageSectionObject 0xbdb82770   None   \Device\HarddiskVolume1\Users\Henry Smith\Downloads\hooker-3.4\Hooker.exe
DataSectionObject 0xbdb82770   None   \Device\HarddiskVolume1\Users\Henry Smith\Downloads\hooker-3.4\Hooker.exe

C:\Users\Administrator>C:\densityscout.exe -p 0.1 "C:\ExtractedFiles"

DensityScout (Build 45)

by Christian Wojner

Calculating density for file ...
(Density) | Filename
--------------------------------------------------------------
(1.09243) | C:\ExtractedFiles\file.None.0xfffffa8025d91010.Hooker.exe.img
(1.51938) | C:\ExtractedFiles\file.None.0xfffffa8027b2f480.rvlkl.exe.img


C:\Users\Administrator>_
```

Section 3: Challenge and Analysis

Part 1: Identify Malicious Connections

Document the three processes that connected to 205.134.253.10:4444.

dllhost.exe
QaNoQBC.exe

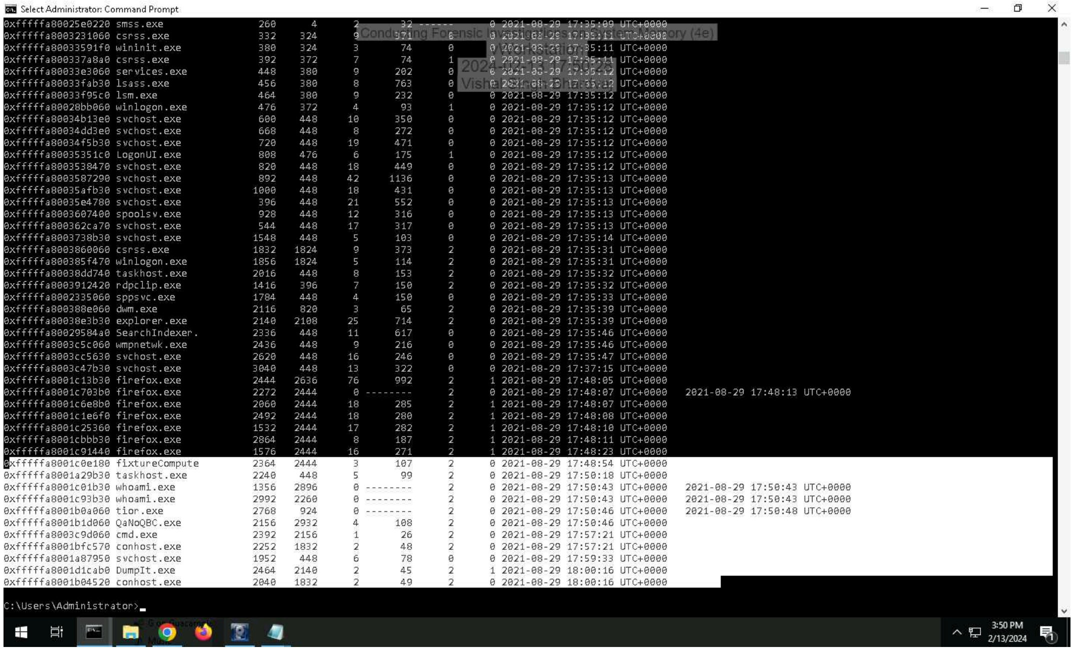
fixtureCompute

Document the name and purpose of the software you discovered.

Some rootkits, backdoors, and Trojans open and use port 4444. It uses port to eavesdrop on traffic and communication and to receive data from compromised computer. Malware such as Blaster worm and its variants used port 4444 to create backdoors.
Source - socradar.io

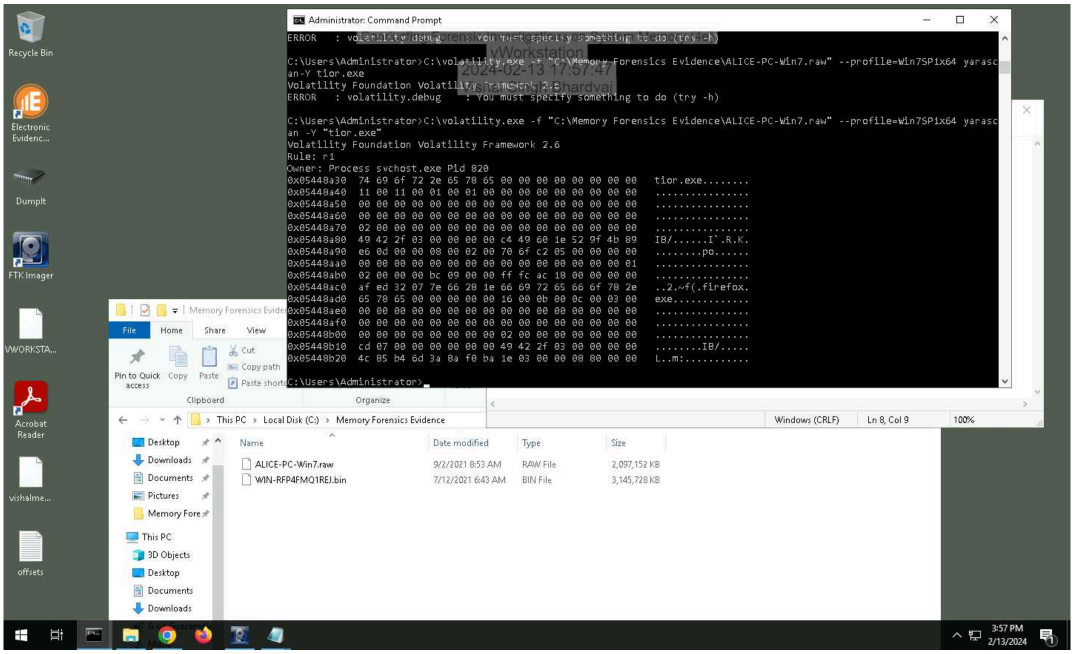
Part 2: Identify Malicious Processes

Make a screen capture showing the **fixtureComputer.exe process, and all those below it, in the pslist output.**


Select Administrator: Command Prompt
Conducting Forensic Investigations on System Memory (4e)
vWorkstation
2024-02-13 17:50:23
Vishal Singh Bhardwaj
3:50 PM
2/13/2024

```
0xfffffa80025e0220 smss.exe               260      4      2      32 ------      0 2021-08-29 17:35:09 UTC+0000
0xfffffa8003231060 csrss.exe              332    324      9     371      0      0 2021-08-29 17:35:11 UTC+0000
0xfffffa80033591f0 wininit.exe            380    324      3      74      0      0 2021-08-29 17:35:11 UTC+0000
0xfffffa800337a8a0 csrss.exe              392    372      7      74      1      0 2021-08-29 17:35:11 UTC+0000
0xfffffa80033e3060 services.exe           448    380      9     202      0      0 2021-08-29 17:35:12 UTC+0000
0xfffffa80033fab30 lsass.exe              456    380      8     763      0      0 2021-08-29 17:35:12 UTC+0000
0xfffffa80033f95c0 lsm.exe                464    380      9     232      0      0 2021-08-29 17:35:12 UTC+0000
0xfffffa80028bb060 winlogon.exe           476    372      4      93      1      0 2021-08-29 17:35:12 UTC+0000
0xfffffa80034b13e0 svchost.exe            600    448     10     350      0      0 2021-08-29 17:35:12 UTC+0000
0xfffffa80034dd3e0 svchost.exe            668    448      8     272      0      0 2021-08-29 17:35:12 UTC+0000
0xfffffa80034f5b30 svchost.exe            720    448     19     471      0      0 2021-08-29 17:35:12 UTC+0000
0xfffffa80035351c0 LogonUI.exe            808    476      6     175      1      0 2021-08-29 17:35:12 UTC+0000
0xfffffa8003538470 svchost.exe            820    448     18     449      0      0 2021-08-29 17:35:12 UTC+0000
0xfffffa8003587290 svchost.exe            892    448     42    1136      0      0 2021-08-29 17:35:13 UTC+0000
0xfffffa80035afb30 svchost.exe           1000    448     18     431      0      0 2021-08-29 17:35:13 UTC+0000
0xfffffa80035e4780 svchost.exe            396    448     21     552      0      0 2021-08-29 17:35:13 UTC+0000
0xfffffa8003607400 spoolsv.exe            928    448     12     316      0      0 2021-08-29 17:35:13 UTC+0000
0xfffffa800362ca70 svchost.exe            544    448     17     317      0      0 2021-08-29 17:35:13 UTC+0000
0xfffffa8003738b30 svchost.exe           1548    448      5     103      0      0 2021-08-29 17:35:14 UTC+0000
0xfffffa8003860060 csrss.exe             1832   1824      9     373      2      0 2021-08-29 17:35:31 UTC+0000
0xfffffa800385f470 winlogon.exe          1856   1824      5     114      2      0 2021-08-29 17:35:31 UTC+0000
0xfffffa80038dd740 taskhost.exe          2016    448      8     153      2      0 2021-08-29 17:35:32 UTC+0000
0xfffffa8003912420 rdpclip.exe           1416    396      7     150      2      0 2021-08-29 17:35:32 UTC+0000
0xfffffa8002335060 sppsvc.exe            1784    448      4     150      0      0 2021-08-29 17:35:33 UTC+0000
0xfffffa800388e060 dwm.exe               2116    820      3      65      2      0 2021-08-29 17:35:39 UTC+0000
0xfffffa80038e3b30 explorer.exe          2140   2108     25     714      2      0 2021-08-29 17:35:39 UTC+0000
0xfffffa80029584a0 SearchIndexer.        2336    448     11     617      0      0 2021-08-29 17:35:46 UTC+0000
0xfffffa8003c5c060 wmpnetwk.exe          2436    448      9     216      0      0 2021-08-29 17:35:46 UTC+0000
0xfffffa8003cc5630 svchost.exe           2620    448     16     246      0      0 2021-08-29 17:35:47 UTC+0000
0xfffffa8003c47b30 svchost.exe           3040    448     13     322      0      0 2021-08-29 17:37:15 UTC+0000
0xfffffa8001c13b30 firefox.exe           2444   2636     76     992      2      1 2021-08-29 17:48:05 UTC+0000
0xfffffa8001c703b0 firefox.exe           2272   2444      0 --------      2      0 2021-08-29 17:48:07 UTC+0000   2021-08-29 17:48:13 UTC+0000
0xfffffa8001c6e8b0 firefox.exe           2060   2444     18     285      2      1 2021-08-29 17:48:07 UTC+0000
0xfffffa8001c1e6f0 firefox.exe           2492   2444     18     280      2      1 2021-08-29 17:48:08 UTC+0000
0xfffffa8001c25360 firefox.exe           1532   2444     17     282      2      1 2021-08-29 17:48:10 UTC+0000
0xfffffa8001cbbb30 firefox.exe           2864   2444      8     187      2      1 2021-08-29 17:48:11 UTC+0000
0xfffffa8001c91440 firefox.exe           1576   2444     16     271      2      1 2021-08-29 17:48:23 UTC+0000
0xfffffa8001c0e180 fixtureCompute        2364   2444      3     107      2      0 2021-08-29 17:48:54 UTC+0000
0xfffffa8001a29b30 taskhost.exe          2240    448      5      99      2      0 2021-08-29 17:50:18 UTC+0000
0xfffffa8001c01b30 whoami.exe            1356   2896      0 --------      2      0 2021-08-29 17:50:43 UTC+0000   2021-08-29 17:50:43 UTC+0000
0xfffffa8001c93b30 whoami.exe            2992   2260      0 --------      2      0 2021-08-29 17:50:43 UTC+0000   2021-08-29 17:50:43 UTC+0000
0xfffffa8001b0a060 tior.exe              2768    924      0 --------      2      0 2021-08-29 17:50:46 UTC+0000   2021-08-29 17:50:48 UTC+0000
0xfffffa8001b1d060 QaNoQBC.exe           2156   2932      4     108      2      0 2021-08-29 17:50:46 UTC+0000
0xfffffa8003c9d060 cmd.exe               2392   2156      1      26      2      0 2021-08-29 17:57:21 UTC+0000
0xfffffa8001bfc570 conhost.exe           2252   1832      2      48      2      0 2021-08-29 17:57:21 UTC+0000
0xfffffa8001a87950 svchost.exe           1952    448      6      78      0      0 2021-08-29 17:59:33 UTC+0000
0xfffffa8001d1cab0 DumpIt.exe            2464   2140      2      45      2      1 2021-08-29 18:00:16 UTC+0000
0xfffffa8001b04520 conhost.exe           2040   1832      2      49      2      0 2021-08-29 18:00:16 UTC+0000

C:\Users\Administrator>
```

Make a screen capture showing the **output of the yarascan**.



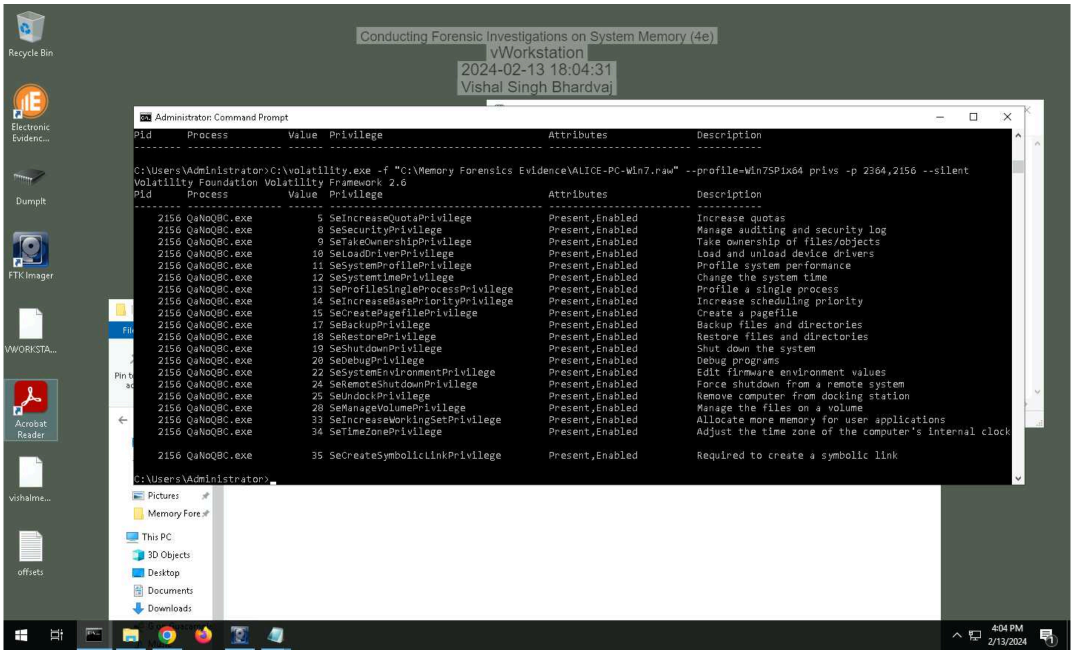
```
ERROR   : volatility.debug    : You must specify something to do (try -h)

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\ALICE-PC-Win7.raw" --profile=Win7SP1x64 yarasc
an-Y tior.exe
Volatility Foundation Volatility Framework 2.6
ERROR   : volatility.debug    : You must specify something to do (try -h)

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\ALICE-PC-Win7.raw" --profile=Win7SP1x64 yarasc
an -Y "tior.exe"
Volatility Foundation Volatility Framework 2.6
Rule: r1
Owner: Process svchost.exe Pid 820
0x05448a30  74 69 6f 72 2e 65 78 65 00 00 00 00 00 00 00 00   tior.exe........
0x05448a40  11 00 11 00 01 00 01 00 00 00 00 00 00 00 00 00   ................
0x05448a50  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0x05448a60  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0x05448a70  02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0x05448a80  49 42 2f 03 00 00 00 00 c4 49 60 1e 52 9f 4b 89   IB/......I`.R.K.
0x05448a90  e6 0d 00 00 08 00 02 00 70 6f c2 05 00 00 00 00   ........po......
0x05448aa0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01   ................
0x05448ab0  02 00 00 00 bc 09 00 00 ff fc ac 18 00 00 00 00   ................
0x05448ac0  af ed 32 07 7e 66 28 1e 66 69 72 65 66 6f 78 2e   ..2.~f(.firefox.
0x05448ad0  65 78 65 00 00 00 00 00 16 00 0b 00 0c 00 03 00   exe.............
0x05448ae0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0x05448af0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0x05448b00  00 00 00 00 00 00 00 00 02 00 00 00 00 00 00 00   ................
0x05448b10  cd 07 00 00 00 00 00 00 49 42 2f 03 00 00 00 00   ........IB/.....
0x05448b20  4c 85 b4 6d 3a 8a f0 ba 1e 03 00 00 08 80 00 00   L..m:...........

C:\Users\Administrator>
```

This PC > Local Disk (C:) > Memory Forensics Evidence

Name	Date modified	Type	Size
ALICE-PC-Win7.raw	9/2/2021 8:53 AM	RAW File	2,097,152 KB
WIN-RFP4FMQ1REJ.bin	7/12/2021 6:43 AM	BIN File	3,145,728 KB

Part 3: Identify Privilege Escalation

Make a screen capture showing the **output of your privilege comparison**.



```
Pid      Process          Value  Privilege                            Attributes               Description
-------- ---------------- ------ ------------------------------------ ------------------------ -----------

C:\Users\Administrator>C:\volatility.exe -f "C:\Memory Forensics Evidence\ALICE-PC-Win7.raw" --profile=Win7SP1x64 privs -p 2364,2156 --silent
Volatility Foundation Volatility Framework 2.6
Pid      Process          Value  Privilege                            Attributes               Description
-------- ---------------- ------ ------------------------------------ ------------------------ -----------
    2156 QaNoQBC.exe          5 SeIncreaseQuotaPrivilege             Present,Enabled          Increase quotas
    2156 QaNoQBC.exe          8 SeSecurityPrivilege                  Present,Enabled          Manage auditing and security log
    2156 QaNoQBC.exe          9 SeTakeOwnershipPrivilege             Present,Enabled          Take ownership of files/objects
    2156 QaNoQBC.exe         10 SeLoadDriverPrivilege                Present,Enabled          Load and unload device drivers
    2156 QaNoQBC.exe         11 SeSystemProfilePrivilege             Present,Enabled          Profile system performance
    2156 QaNoQBC.exe         12 SeSystemtimePrivilege                Present,Enabled          Change the system time
    2156 QaNoQBC.exe         13 SeProfileSingleProcessPrivilege      Present,Enabled          Profile a single process
    2156 QaNoQBC.exe         14 SeIncreaseBasePriorityPrivilege      Present,Enabled          Increase scheduling priority
    2156 QaNoQBC.exe         15 SeCreatePagefilePrivilege            Present,Enabled          Create a pagefile
    2156 QaNoQBC.exe         17 SeBackupPrivilege                    Present,Enabled          Backup files and directories
    2156 QaNoQBC.exe         18 SeRestorePrivilege                   Present,Enabled          Restore files and directories
    2156 QaNoQBC.exe         19 SeShutdownPrivilege                  Present,Enabled          Shut down the system
    2156 QaNoQBC.exe         20 SeDebugPrivilege                     Present,Enabled          Debug programs
    2156 QaNoQBC.exe         22 SeSystemEnvironmentPrivilege         Present,Enabled          Edit firmware environment values
    2156 QaNoQBC.exe         24 SeRemoteShutdownPrivilege            Present,Enabled          Force shutdown from a remote system
    2156 QaNoQBC.exe         25 SeUndockPrivilege                    Present,Enabled          Remove computer from docking station
    2156 QaNoQBC.exe         28 SeManageVolumePrivilege              Present,Enabled          Manage the files on a volume
    2156 QaNoQBC.exe         33 SeIncreaseWorkingSetPrivilege        Present,Enabled          Allocate more memory for user applications
    2156 QaNoQBC.exe         34 SeTimeZonePrivilege                  Present,Enabled          Adjust the time zone of the computer's internal clock

    2156 QaNoQBC.exe         35 SeCreateSymbolicLinkPrivilege        Present,Enabled          Required to create a symbolic link

C:\Users\Administrator>
```