Getting Kali and Metasploit Up and Running

```
# msfupdate
# service postgresql start //verify port 5432
# msfdb init
#service apache2 start
                              //local webserver started up
# msfconsole
msf> db status
msf> workspace
                                //update-rc.d "service" defaults if
                                you want to add startup persistence
To change to a static IP address for eth0 edit
/etc/network/interfaces
     auto eth0
     iface eth0 inet static
     address 192.168.0.x
     netmask 255.255.255.0
     broadcast 192.168.0.255
     gateway xxx.xxx.xxx.xxx
For DHCP on eth0, comment out the lines above except (auto eth0) and
add (iface eth0 inet dhcp)
You may have to change nameserver in /etc/resolv.conf
     domain localdomain
     search localdomain
     nameserver 192.168.195.2 //your nameserver of choice
service networking restart //may need to restart the services
above
```

Once you are on TGT, think about what you want from the box:

```
getuid
                            //to get current privilege and user level
                           you are running under
migrate or getsystem
                           //to run under different process
clearev
                           //clear logs in app, system, security;
probably do a last step
                           //pulls SAM database
hashdump
ipconfig
idletime
                           //since last user logged in
                           //current processes running on tgt
ps
upload
                           //what to full/path/to/destination
download
                           //remember to use escape/ in full pathname
webcam snap
screenshot
search -f
                           //search for files
persistence?
Pivoting by adding routes
Putting tools up on target with nc if possible
```

More in <u>Metasploit</u>, <u>The Penetration Tester's Guide</u>, Annex B

Create OP Notes to keep track of what, where, how, and when you do something on Targets

```
192.168.0.13 (Kali)
--> 172.16.32.1 (Windows XP sp3)
                                                     TGT 1
--> 172.16.32.4 (Metasploitable Linux 2.6.3)
                                               TGT 2
----> 10.10.0.2 (Windows 7 sp0)
                                                TGT 3
8:31 AM 2/20/2017:
                     On TGT 1 with MS08 067
8:33 AM 2/20/2017:
                    Got System
8:33 AM 2/20/2017:
                     Uptime: 3 day, 12 hours, 47 min
8:34 AM 2/20/2017:
                     Grabbed screenshot, no one on box
8:35 AM 2/20/2017:
                     Hashdump complete, got user jpecos
8:37 AM 2/20/2017:
                     Searched for plans.*
8:37 AM 2/20/2017:
                    Downloaded plans.jpg and plans.pdf
8:39 AM 2/20/2017: Cleared Logs; off TGT 1
8:40 AM 2/20/2017:
                     On TGT 2 with DRuby
8:40 AM 2/20/2017:
                     Got Root
8:41 AM 2/20/2017:
                     Uptime: 303 days, 17 hours, 31 min
8:45 AM 2/20/2017:
                    Set up Pivot to TGT 3
8:51 AM 2/20/2017:
                    On TGT 3 with Passed Hash user jpecos
8:52 AM 2/20/2017: Got System
```

8:52 AM 2/20/2017: Uptime: 1 day, 1 hour, 53 min

8:55 AM 2/20/2017: Installed persistence

8:57 AM 2/20/2017: Cleaned logs; Off TGT 3

9:01 AM 2/20/2017: Off TGT 2

End notes

Malware Analysis Quick Methodology

Static Analysis:

 $\ensuremath{\mathsf{MD5Sum}}$ and/or SHA1Sum the file against VirusTotal or other places

PEView to see any export/import tables

- Dlls that might characterize the malware

DIE to look for and ID packing

- Is an unpacker needed?

Strings the file with SysInt Strings or other program OllyBdg or IDAPro

Dynamic and Behavior Analysis (need FakeDNS and INetSim Webserver):

Autoruns save before kicking off malware

TShark to start packet capture

RegShot and save to know what the registry was like before PROCMON and pause/clear the capture before kicking off malware

- Filter for the malware
- Handles and processes kicked off

TCPView to look for connections from the malware

ProcessHacker

Run the Malware and let it go for a while

Pause PROCMON and filter any new spawned processes
RegShot, save, and compare looking for persistence
Stop TShark and look for suspicious network traffic

Check FakeDNS and Webserver logs

Write a Triage Malware Report

Metadata including original file name, type, size, dates, hashes

Overall Summary

FileSystem and Registry Changes

Network Activity (IPs, URLs requested, clear, encrypted comms)

Strings of Interest

Mutexes Created

Process Activity (created, terminated)