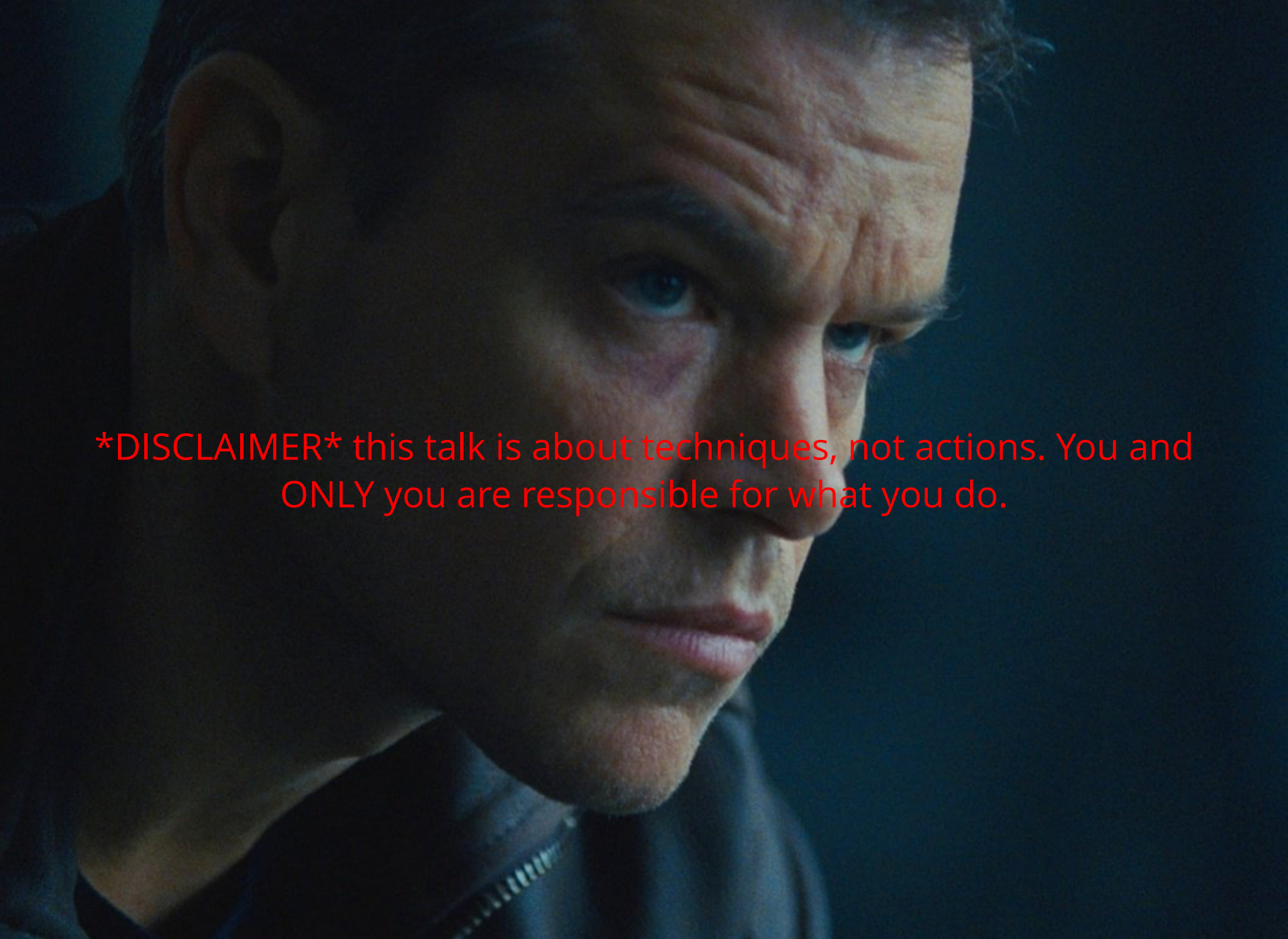

WRITING MULTI -
PLATFORM SPYWARE


DISCLAIMER this talk is about techniques, not actions. You and ONLY you are responsible for what you do.

MISSION:

the job of spy ware, is to spy, the goal of the spy ware operator is to spy on humans...

the goal is simple, acquire as much data as possible,
while remaining as hidden as possible.

- memory corruption
- disk writes
- "event" triggers
- network "volume"
- CPU load

- visible changes to the UX
- reverse engineering is an ever - present risk.

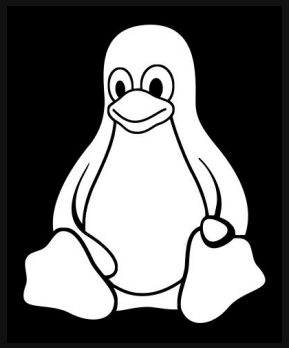
TL;DR, ONCE YOUR TARGET SUSPECTS YOUR EXISTENCE, YOU LOSE.

INTELLIGENCE GATHERING

MEMORY PERSISTANCE

SHARED OBJECT INJECTION

PROCESS



ENTER

PTRACE SNAPSHOT

OVERRIDE PT EXCEPTION

SETUP NULL CALL

REPLACE REGISTERS

RESUME

MEMORY PERSISTANCE

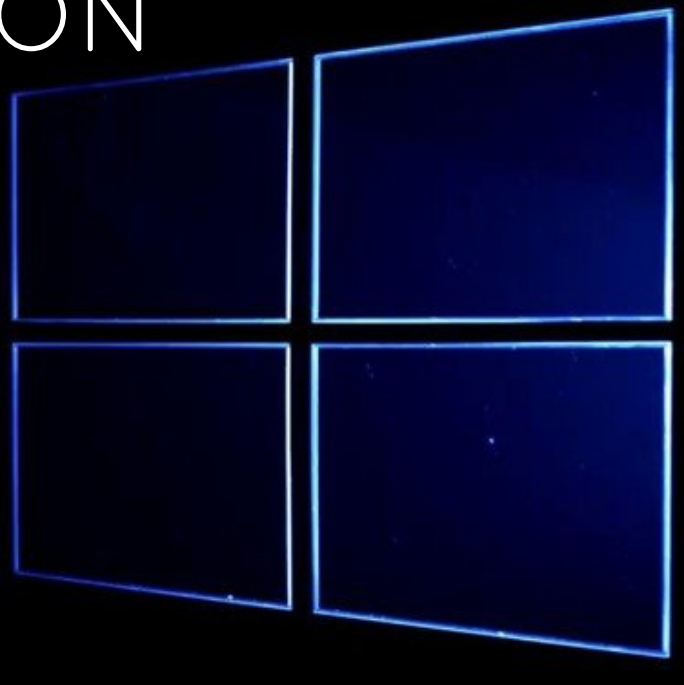
HOOKING SYSCALLS

MEMORY PERSISTANCE

"THEY'RE IN THE KERNEL!"

MEMORY PERSISTANCE

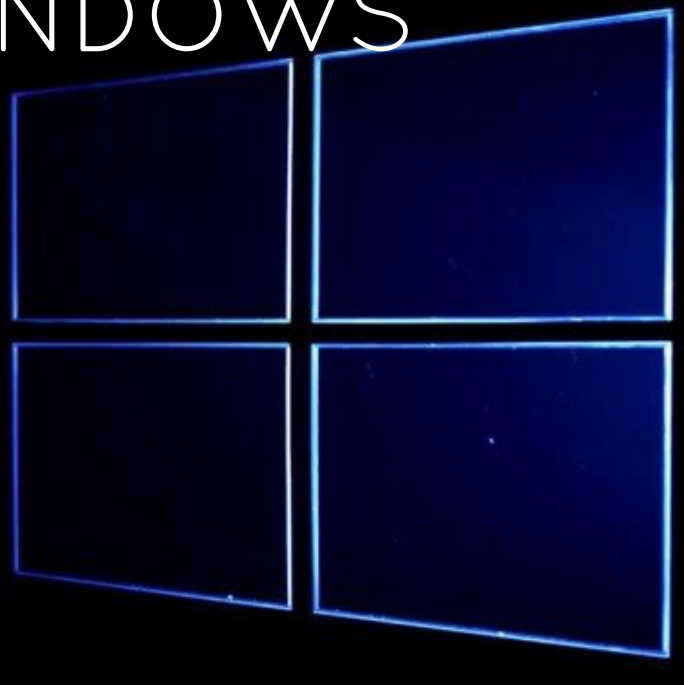
DLL INJECTION



CreateRemoteThread()

MEMORY PERSISTANCE

HOOKING ON WINDOWS



SetWindowsHookEx()

SetThreadContext()

DLL redirection

MEMORY PERSISTANCE

LDPRELOAD ON /
DYLD_INSERT_LIBRARIES

PROCESS MIGRATION

MEMORY PERSISTANCE

MODIFY & REPLACE THE APP / LIB

then kill the original process (and restart it if required)

~~MEMORY~~ PERSISTANCE

ROOT@LOCALHOST:~# BACKDOOR-FACTORY

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~~MEMORY~~ PERSISTANCE

INSTALL A WINDOWS SERVICE

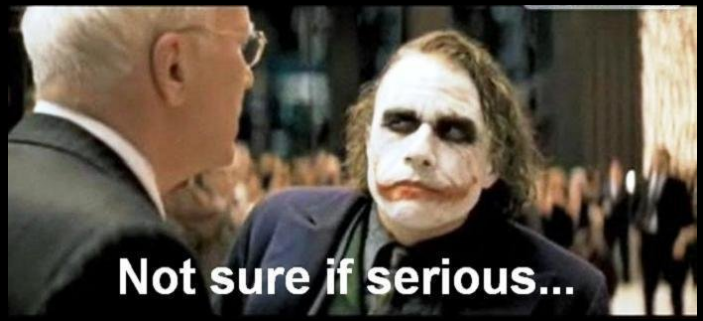
CRON

LAUNCHD

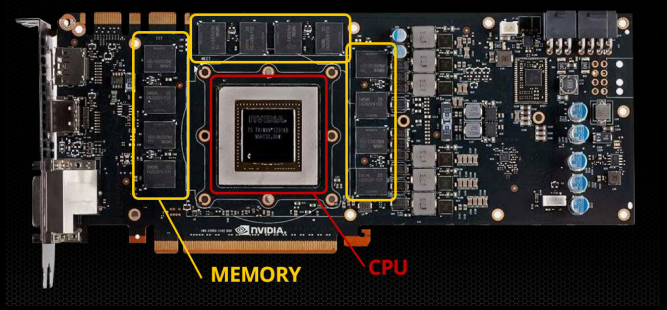
DLL REDIRECTION

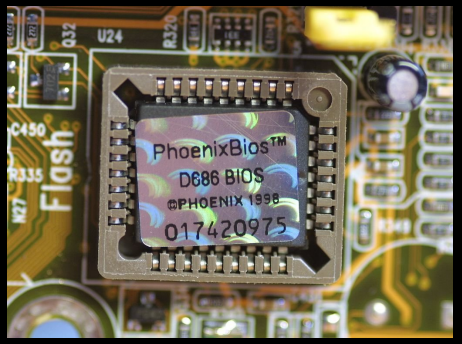
~~MEMORY~~ PERSISTANCE

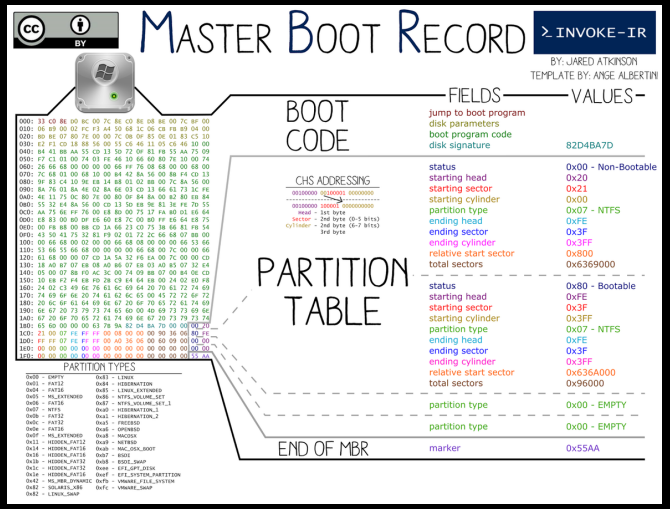
- C:\Users\<user name>\AppData\Roaming\Microsoft\Windo
- C:\ProgramData\Microsoft\Windows\Start Menu\Programs
- .bashrc ...
- init.d modification
- USB / CDROM autorun
- network connection auto run (Little Snitch, Microsof



~~MEMORY~~ PERSISTANCE








DATA MINING

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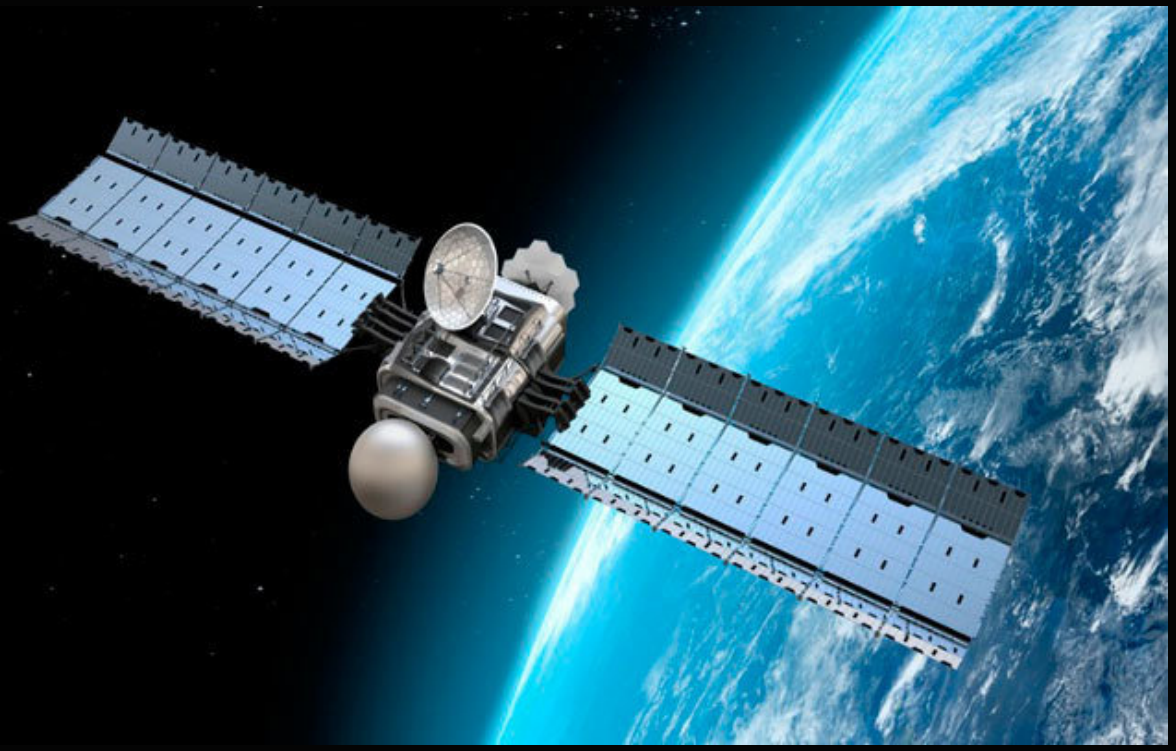
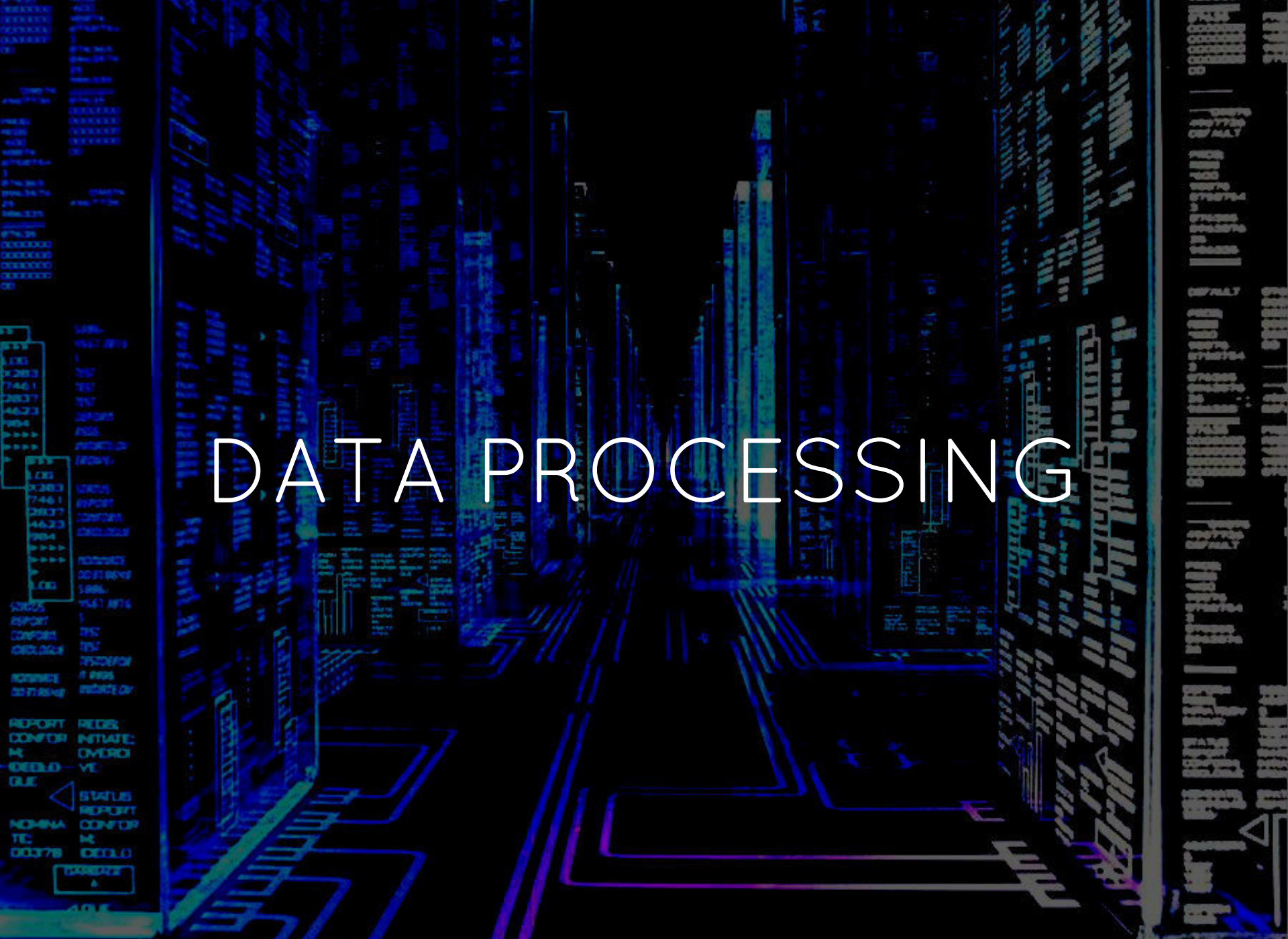


DATA MINING

- SSH, VPN, SSL, VNC, RDP, DOMAIN, etc, keys / certs
- key logger data
- password databases
- packet captures
- GPG, in - memory key tokens
  - whats app
  - signal
  - tor
  - SMIME
  - bio - metric scanners
  - etc...


DATA PROCESSING

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slack

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ELASTICSEARCH

DATA PROCESSING

STRINGS, SED, AWK, GREP, CUT, HEXDUMP, FILE, ETC...

CONCLUSION

- YOUR TARGETS ARE HUMANS, SO STUDY HUMANS
- DON'T RE INVENT THE WHEEL
- PRACTICE PRACTICE PRACTICE
- MULTIPLAYER IS ALWAYS BETTER