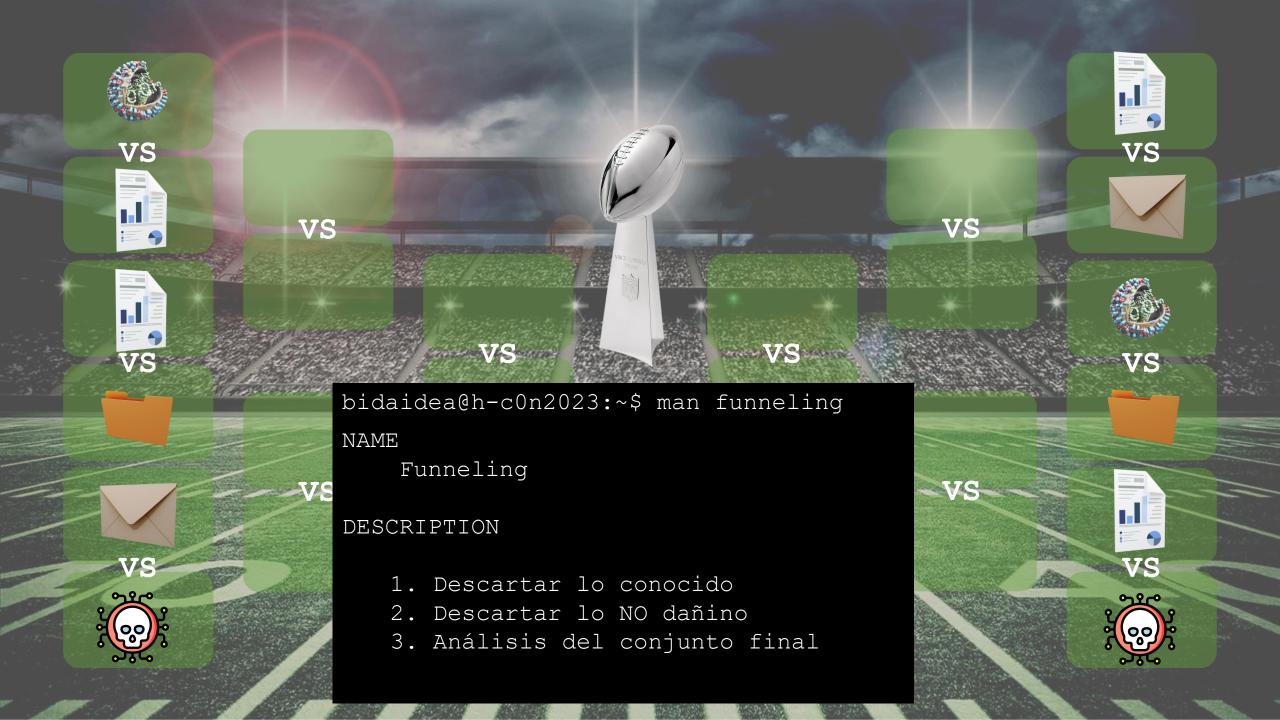


bidaidea@h-c0n2023:~\$ sudo adduser rafa --ingroup bidaidea Adding user `rafa` Adding new user `rafa` (1001) with group `bidaidea` Enter the new value, or press ENTER for the default Full Name []: Rafael Tenorio Rol []: DFIR & CTI Service Manager @ Bidaidea Email []: rafael.tenorio@bidaidea.com Other []: GCTI/GCFA/GCFE/GASF/CISM en más de 10 años en estas batallas, involucrado en incidentes internacionales, analizando APTs, liderando equipos de ciberinteligencia y construyendo CSIRT/CERT en operaciones, todo con familia y aficiones. bidaidea@h-c0n2023:~\$ sudo adduser luise --ingroup bidaidea Adding user `luise` Adding new user `luise` (1002) with group `bidaidea` Enter the new value, or press ENTER for the default Full Name []: Luis Enrique Sainz Rol []: Cybersecurity Principal analyst @ Bidaidea Email []: luis.sainz@bidaidea.com Other []: cerca 20 años de experiencia en el desarrollo y de admin, siendo reservista voluntario en el MCCE y radioaficionado.

bidaidea@h-c0n2023:~\$ whoami rafa/luise









bidaidea@h-c0n2023:~\$ sudo ewfacquire -u -c "fast" -S "10GiB" -C "Playoff" -D
"Dirty" -e "HeadCoach" -l /data/dirty/ewfacquire.log -t "/data/dirty/dirty"
/dev/nvme0n1p3



```
caine@caine: ~
File Edit View Search Terminal Help
/dev/nvme0n1p3 239616 166729555 166489940 79,4G Microsoft basic data
Disk /dev/sda: 200 GiB, 214748364800 bytes, 419430400 sectors
Disk model: VMware Virtual S
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: FBB2473F-C013-334A-8220-028499F90D5D
                    End Sectors Size Type
         Start
caine@caine:~$ sudo mount /dev/sda1 /mnt/
caine@caine:~$ sudo umount /mnt
caine@caine:~$ sudo mount /dev/sdal /media/sda
ntfs-3g-mount: failed to access mountpoint /media/sda: No such file or directory
caine@caine:~$ sudo mount /dev/sda1 /mnt/
caine@caine:~$ ls /mnt/
caine@caine:~$ sudo ewfacquire -u -c "fast" -S "10GiB" -C "Playoff" -D "Dirty"
e "HeadCoach" -l /mnt/dirty/log.txt -t "/mnt/dirty/dirty" /dev/nvme0n1p3
```

```
bidaidea@h-c0n2023:~$ sudo ewfmount /data/dirty/dirty.E01 /mnt/ewf_dirty
bidaidea@h-c0n2023:~$ sudo mount -t ntfs3 -o ro,loop /mnt/ewf_dirty/ewf1
/mnt/windows02
bidaidea@h-c0n2023:~$ macrobber-ng -5 /mnt/windows02 > /data/dirty/dirty.body
```

# Body file!!!!

MD5/Path/inodo/filetype+Permissions+linkfile/uid/gid/size/AMCB Time



# **System Information**

## **Operating System Version**

#### Description

This determines the operating system type, version, build number and installation dates for current installation and previous updates.

#### Location

- SOFTWARE\Microsoft\Windows NT\CurrentVersion
- SYSTEM\Setup\Source 05

#### Interpretation

CurrentVersion key stores:

- ProductName, EditionID OS type
- DisplayVersion, Releaseld, CurrentBuildNumber Version info
- InstallTime Installation time of current build (not original installation) Source OS keys are created for each historical OS update:
- ProductName, EditionID OS type
- · BuildBranch, Releaseld, CurrentBuildNumber Version info
- InstallTime Installation time of this build version
- Times present in names of Source OS keys are extraneous: InstallTime = 64-bit FILETIME format (Win10+) InstallDate = Unix 32-bit epoch format (both times should be equivalent)

### **Computer Name**

#### Description

This stores the hostname of the system in the ComputerName value.

#### Location

SYSTEM\CurrentControlSet\Control\ComputerName\ComputerName

#### Interpretation

Hostname can facilitate correlation of log data and other artifacts.

## System Boot & A

#### Description

System Boot and Autostart Programs on system boot or at user login.

#### Location

- NTUSER\_DAT\Software\Microsoft\Windows\CurrentVers\
- NTUSER.DAT\Software\Microsoft\Windows\CurrentVersion.
- SOFTWARE\Microsoft\Windows\CurrentVersion\RunOnce
- SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\Explox
- SOFTWARE\Microsoft\Windows\CurrentVersion\Run
- SYSTEM\CurrentControlSet\Services If Start value is set to 0x02, then service applicats (0x00 for drivers)

#### Interpretation

- Useful to find malware and to audit installed software
- · This is not an exhaustive list of autorun locations

#### Description

It is the last time the system was shutdown. On Windows XP, the of shutdowns is also recorded.

#### Location

- SYSTEM\CurrentControlSet\Control\Windows (Shutdown Time)
- SYSTEM\CurrentControlSet\Control\Watchdog\Display (Shutdown Count - WinXP only)

#### Interpretation

- · Determining last shutdown time can help to detect user behavior and system anomalies
- Windows 64-bit FILETIME format

# FORENSICS 🔓 INCIDENT RESPONSE

System Last Shutdown To Orensic Ana

You Can't Protect the

sics.sans.org

bidaidea@h-c0n2023:~\$ rip.pl -r /mnt/dirty/Windows/System32/config/SOFTWARE -p winver

jedi@eadu:/media/jedi/76FF193F32F8C57A/dirty\$ rip.pl -r /mnt/dirty/Windows/System32/config/S0FTWARE -p winver Launching winver v.20200525

winver v.20200525

(Software) Get Windows version & build info

ProductName Windows 10 Home

ReleaseID 2009

BuildLab 19041.vb release.191206-1406

BuildLabEx 19041.1.amd64fre.vb release.191206-1406

CompositionEditionID Core

RegisteredOrganization

RegisteredOwner Jedi

InstallDate 2021-05-18 14:28:41Z InstallTime 2021-05-18 14:28:41Z

bidaidea@h-c0n2023:~\$ rip.pl -r /mnt/dirty/Windows/System32/config/SYSTEM -p shutdown

jedi@eadu:/media/jedi/76FF193F32F8C57A/dirty\$ rip.pl -r /mnt/dirty/Windows/System32/config/SYSTEM -p shutdown

Launching shutdown v.20200518

shutdown v.20200518

(System) Gets ShutdownTime value from System hive

ControlSet001\Control\Windows key, ShutdownTime value

LastWrite time: 2023-02-07 19:13:45Z ShutdownTime : 2023-02-07 19:13:45Z 

```
-rwxrwxrwx 2 root root 18118 feb 7 19:45 DESKTOP-T651MS2-20230207-1945.log
-rwxrwxrwx 1 root root 154320 feb 7 19:49 MpCmdRun.log
-rwxrwxrwx 2 root root 1202 feb 7 19:49 MpCopyAccelerator.log
-rwxrwxrwx 2 root root 407734 feb 7 19:49 MpSigStub.log
drwxrwxrwx 1 root root 0 ott 22 2021 ***DEGREERING**
-rwxrwxrwx 1 root root 311692 ott 22 2021 msedge_installer.log
-rwxrwxrwx 1 root root 196608 ott 22 2021 TS_273E.tmp
-rwxrwxrwx 2 root root 1093632 set 9 2021 UpdHealthTools.msi
drwxrwxrwx 2 root root 1093632 set 9 2021 UpdHealthTools.msi
drwxrwxrwx 2 root root 78454 feb 7 19:50 vmware-vmsvc-SYSTEM.log
-rwxrwxrwx 2 root root 1987 feb 7 19:42 vmware-vmtoolsd-Jedi.log
-rwxrwxrwx 2 root root 1690 feb 7 19:42 vmware-vmtoolsd-SYSTEM.log
-rwxrwxrwx 2 root root 37997 feb 7 19:50 vmware-vmusr-Jedi.log
-rwxrwxrwx 2 root root 37997 feb 7 19:50 vmware-vmusr-Jedi.log
-rwxrwxrwx 2 root root 37997 feb 7 19:30 vmware-vmusr-Jedi.log
-rwxrwxrwx 2 root root 37997 feb 7 19:30 vmware-vmusr-Jedi.log
-rwxrwxrwx 1 root root 0 ott 22 2021 ***Tryx**
-rwxrwxrwx 1 root root 0 ott 22 2021 ***Tryx**
-rwxrwxrwx 1 root root 0 ott 22 2021 ***Tryx**
-rwxrwxrwx 1 root root 0 ott 22 2021 ***Tryx**
-rwxrwxrwx 1 root root 0 ott 22 2021 ***Tryx**
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-rwxrwxrwx 1 root root 0 ott 22 2021 ***Tryx**
-rwxrwxrwx 1 root root 0 ott 22 2021 ***Tryx**
-rwxrwxrwx 1 root root 0 ott 22 2021 ***Tryx**
-rwxrwxrwx 2 root root 1344 feb 7 19:38 ***Tryx**
-rwxrwxrwx 2 root root 1344 feb 7 19:38 ***Tryx**
-rwxrwxrwx 2 root root 1344 feb 7 19:38 ***Tryx**
-rwxrwxrwx 2 root root 1344 feb 7 19:38 ***Tryx**
-rwxrwxrwx 2 root root 1344 feb 7 19:38 ***Tryx**
-rwxrwxrwx 2 root root 1344 feb 7 19:38 ***Tryx**
-rwxr
```

bidaidea@h-c0n2023:~\$ sudo ewfmount /data/clean/clean.E01 /mnt/ewf\_clean bidaidea@h-c0n2023:~\$ sudo mount -t ntfs3 -o ro /mnt/ewf\_clean /mnt/windows02 bidaidea@h-c0n2023:~\$ macrobber-ng -5 /mnt/windows01 > /data/clean/clean.body

```
jedi@eadu:/media/jedi/76FF193F32F8C57A/clean$ macrobber-ng -5 /mnt/windows01 > clean.body
jedi@eadu:/media/jedi/76FF193F32F8C57A/clean$ ls -lh
total 18G
-rwxrwxrwx 1 jedi jedi 116M Feb  8 14:56 clean.body
-rwxrwxrwx 1 jedi jedi 10G Feb  7 20:58 clean.E01
-rwxrwxrwx 1 jedi jedi 7,5G Feb  7 21:11 clean.E02
-rwxrwxrwx 1 jedi jedi 65 Feb  7 21:11 log.txt
```

jedi@eadu:/media/jedi/76FF193F32F8C57A/wildcard\$ wc -l md5\_not\_clean.txt
2924 md5\_not\_clean.txt
jedi@eadu:/media/jedi/76FF193F32F8C57A/wildcard\$



Touchdown!!!!

```
def body_parse(file, absolute_path, limit=10):
    """ This function returns a list of dicts with each file in the body file """
    files_object={}
    with open(file) as f:
        lines=0
        for line in f:
            fields=line[0:len(line)-1].split('|') #To remove the New Line
            if fields[0]=='' or fields[0]==None or fields[0]=='0': # Remove empty lines and directories
                continue
            last_bar_pos=fields[1].rfind('/')+1
            filename=None
            extension=None
            if (last_bar_pos!=-1):
                filename=fields[1][last_bar_pos:]
                last_dot_pos=filename.rfind('.')+1
                extension=filename[last_dot_pos:]
                path=fields[1][len(absolute path):last bar pos]
            else:
                path=fields[1][len(absolute_path):]
            file_obj={
                'md5': fields[0],
                'filename':filename,
                'extension':extension,
                'path': path,
                'size': int(fields[6]),
                'atime': float(fields[7]),
                'mtime': float(fields[8]),
                'ctime': float(fields[9]),
                'crtime': float(fields[10]),
            files_object[file_obj['md5']]=file_obj
            if limit!=None and lines>limit:
                break
            lines=lines+1
    f.close()
    return files_object
```

```
def md5_list(file_list):
    md5_=set()
    i=0
    for file in file_list:
        md5_.add(file_list[file]['md5'])
        i=i+1
    return md5_
```

```
def list_compare(a, b):
    r=set()
    for e in a:
        if e not in b:
            r.add(e)
    return r
```

```
In [1]: | import time
            from utilities import list compare, md5 list, body parse
In [2]: ▶ # Cargamos la lista de ficheros de la imagen limpia
            t1=time.time()
            files clean=body parse('../Data/clean/clean.body', '/mnt/windows01', None)
            md5_list_clean=md5_list(files_clean)
            t2=time.time()-t1
            print(("Cargados "+str(len(md5 list clean))+" ficheros en {:02.2f} segundos").format(t2))
            Cargados 214740 ficheros en 0.93 segundos
In [3]: ▶ # Cargamos la lista de ficheros de la imagen sucia
            t1=time.time()
            files_dirty=body_parse('../Data/dirty/dirty.body', '/mnt/windows02', None)
            md5_list_dirty=md5_list(files_dirty)
            t2=time.time()-t1
            print(("Cargados "+str(len(md5_list_dirty))+" ficheros en {:02.2f} segundos").format(t2))
            Cargados 215825 ficheros en 0.90 segundos
In [4]: ▶ # Comparamos los sets
            files difference=list_compare(md5_list_dirty, md5_list_clean)
            print("Hay " + str(len(files difference)) + " ficheros diferentes")
            Hay 2924 ficheros diferentes
```



```
bidaidea@h-c0n2023:~$ cd /divisional
bidaidea@h-c0n2023:/divisional$ grep -f md5 not clean.txt dirty.body > divisional.body
bidaidea@h-c0n2023:/divisional$ egrep
"\.exe\||\.dll\||\.msi\||\.vbs\||\.vbe\||\.bat\||\.ps1\|" divisional.body >
conference.body
  jedi@eadu:/data/divisional$ egrep "\.exe\||\.dll\||\.msi\|\.vbs\||\.vbe\||\.bat\||\.ps1\|" divisional.body > conference.body
  jedi@eadu:/data/divisional$ wc -l conference.body
  602 conference.body
         8ceclaf925f69f30a17f772b14662bca|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/mip protection sdk.dll|3
         3cfa034laa269dd878le66614d94d9d5|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/augloop client.dll|39927
         12f546eb0fd220609e2d4747e48aaccc|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/BH0/ie to edge bho.dll|3
         cade8c94b6f83d98c949e2a8e078243d|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/BH0/ie to edge bho 64.dl
         70e19e4a1b095398fb044cdb0a8a8150|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/BH0/ie to edge stub.exe
         -/008ad741e745236b2cc546999966726c|/mnt/windows02/Users/Jedi/AppData/Local/Microsoft/Teams/current/api-ms-win-core-sysinfo-l1-1-0.dll|125933
         dlf06lc3ceb4f6af1lf5e3c174507573|/mnt/windows02/Users/Jedi/AppData/Local/Microsoft/Teams/current/api-ms-win-core-timezone-ll-1-0.dll|125106|
         fd1ffb1bcf3315dade9842baa522e2ed|/mnt/windows02/Users/Jedi/AppData/Local/Microsoft/Teams/current/api-ms-win-core-util-l1-1-0.dll|125897|-rwx
         a226a2c9dba8ba379bc46f0ecd270669|/mnt/windows02/Users/Jedi/AppData/Local/Microsoft/Teams/current/api-ms-win-crt-conio-l1-1-0.dll|125949|-rwx
bidaidea@h-c0n2023:/divisional$ egrep -v
"\/Program Files \(x86\)\/Microsoft\/Edge|\/Users\/.*\/AppData\/Local\/Microsoft\/Teams"
conference.body > conference Extratime.body
            edi@eadu:/data/divisional$ egrep -v "\/Program Files \(x86\)\/Microsoft\/Edge|\/Users\/.*\/AppData\/Local\/Microsoft\/Teams"
```

conference.body > conference Extratime.body

13 conference Extratime.body

iedi@eadu:/data/divisional\$ wc -l conference Extratime.body

```
bidaidea@h-c0n2023:~$ cd /divisional
bidaidea@h-c0n2023:/divisional$ grep -f md5 not clean.txt dirty.body > divisional.body
bidaidea@h-c0n2023:/divisional$ egrep
"\.exe\||\.dll\||\.msi\||\.vbs\||\.vbe\||\.bat\||\.ps1\|" divisional.body >
conference.body
  jedi@eadu:/data/divisional$ egrep "\.exe\||\.dll\||\.msi\|\.vbs\||\.vbe\||\.bat\||\.ps1\|" divisional.body > conference.body
  jedi@eadu:/data/divisional$ wc -l conference.body
  602 conference.body
         8ceclaf925f69f30a17f772b14662bca|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/mip protection sdk.dll|3
         3cfa034laa269dd878le66614d94d9d5|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/augloop client.dll|39927
         12f546eb0fd220609e2d4747e48aaccc|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/BH0/ie to edge bho.dll|3
         cade8c94b6f83d98c949e2a8e078243d|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/BH0/ie to edge bho 64.dl
         70e19e4a1b095398fb044cdb0a8a8150|/mnt/windows02/Program Files (x86)/Microsoft/Edge/Application/109.0.1518.78/BH0/ie to edge stub.exe
         -/008ad741e745236b2cc546999966726c|/mnt/windows02/Users/Jedi/AppData/Local/Microsoft/Teams/current/api-ms-win-core-sysinfo-l1-1-0.dll|125933
         dlf06lc3ceb4f6af1lf5e3c174507573|/mnt/windows02/Users/Jedi/AppData/Local/Microsoft/Teams/current/api-ms-win-core-timezone-ll-1-0.dll|125106|
         fd1ffb1bcf3315dade9842baa522e2ed|/mnt/windows02/Users/Jedi/AppData/Local/Microsoft/Teams/current/api-ms-win-core-util-l1-1-0.dll|125897|-rwx
         a226a2c9dba8ba379bc46f0ecd270669|/mnt/windows02/Users/Jedi/AppData/Local/Microsoft/Teams/current/api-ms-win-crt-conio-l1-1-0.dll|125949|-rwx
bidaidea@h-c0n2023:/divisional$ egrep -v
"\/Program Files \(x86\)\/Microsoft\/Edge\\/Users\/.*\/AppData\/Local\/Microsoft\/Teams"
conference.body > conference Extratime.body
                                                                                  Users\/.*\/AppData\/Local\/Microsoft\/Teams"
            edi@eadu:/data/divisional$ egrep -v "\/Program Files \(x86\)\/Mi
            conference.body > conference Extratime.body
            iedi@eadu:/data/divisional$ wc -l conference Extratime.body
            13 conference Extratime.body
```

## Touchdown!!!!

```
In [5]: M print("Filtramos por extensión...")
    interesting_extensions={'exe', 'dll', 'msi', 'bat', 'ps1', 'vbs', 'vbe'}
    cleanup_set=set()
    for file_md5 in files_difference:
        extension=files_dirty[file_md5]['extension'].lower()
        if (extension not in interesting_extensions):
            cleanup_set.add(file_md5)
    print("\tQuitando "+str(len(cleanup_set))+" elementos")
    for e in cleanup_set:
        files_difference.remove(e)
Filtramos por extensión...
```

Quitando 2570 elementos

```
/Users/Jedi/AppData/Local/Microsoft/Teams/current/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/Teams/current/resources/app.asar.unpacked/node_modules/slimc /Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
                                                                                                                                                                                                                 /Program Files (x86)/Microsoft/EdgeWebView/Application/109.0.1518.78/
/Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
/Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/fr-CA/
/Users/Jedi/Documents/KeyCheck v1.0.3.6_RU_EN_ES_VI_LV/data/
                                                                                                         /Program Files (x86)/Microsoft/EdgeWebView/Application/109.0.1518.78/ /Program Files (x86)/Microsoft/EdgeWebView/Application/109.0.1518.78/
/Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x86/fr-FR/
/Program Files (x86)/Microsoft/EdgeWebView/Application/109.0.1518.78/
/Users/Jedi/AppData/Local/Microsoft/Teams/current/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x86/fi-FI/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/Teams/current/
/Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
/Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/Teams/current/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/hu-HU/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x86/runtimes/win-x86/native/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/zh-CN/
/Users/Jedi/AppData/Local/Microsoft/Teams/current/
                                                                                                         /Users/Jedi/Documents/KeyCheck v1.0.3.6_RU_EN_ES_VI_LV/data/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/ar-SA/
/Users/Jedi/AppData/Local/Microsoft/Teams/current/
                                                                                                         /Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
                                                                                                                                                                                                                  /Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/Teams/current/
/Users/Jedi/AppData/Local/Microsoft/Teams/current/resources/app.asar.unpacked/node_modules/slimc /Users/Jedi/AppData/Local/Microsoft/Teams/current/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/Teams/current/
ore/bin/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/nb-NO/
/Users/Jedi/Documents/KeyCheck v1.0.3.6_RU_EN_ES_VI_LV/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/Teams/current/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/Teams/current/
/Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
/Program Files (x86)/Microsoft/EdgeWebView/Application/109.0.1518.78/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/zh-TW/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x86/
                                                                                                         /Program Files (x86)/Microsoft/EdgeWebView/Application/109.0.1518.78/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/
                                                                                                         /Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
/Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/cy-GB/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/
/Program Files (x86)/Microsoft/EdgeWebView/Application/109.0.1518.78/
/Program Files (x86)/Microsoft/EdgeWebView/Application/109.0.1518.78/
/Program Files (x86)/Microsoft/EdgeUpdate/1.3.171.39/
/Users/Jedi/AppData/Local/Microsoft/Teams/MeetingAddin/1.0.22272.2/x86/fr-CA/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/hr-HR/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x86/is-IS/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/Teams/current/
                                                                                                                                                                                                                  /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x64/sl-SI/
                                                                                                         /Users/Jedi/AppData/Local/Microsoft/TeamsMeetingAddin/1.0.22272.2/x86/
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Limpiando por rutas...

Path filter: \/Program Files \(x86\)\/Microsoft\/Edge

Path filter: \/Users\/[a-zA-Z0-9]+\/AppData\/Local\/Microsoft\/Teams

Quitando 152 elementos

Quitando 190 elementos



```
bidaidea@h-c0n2023:~$ cd /conference
bidaidea@h-c0n2023:/conference$ cut -d "|" -f 1 conference Extratime.body >
conference hashes.txt
bidaidea@h-c0n2023:~$ cat conference hashes.txt
1f083f5a820468e5438c32419525b798
c1146dfa30d3bce2f4ee6f5282786e3a
50de124907b4e6aa5adba60f9cc22ed0
0ee2b50c85a110689352fccfa77b5b18
50de124907b4e6aa5adba60f9cc22ed0
c18b690c9f7cf921d35d97e87766b209
cb8020836e77353f5229fe43d436e386
97cf870f1d1fdc83640e3c8d8ec81c66
fdb53152230e3beafccbc2aaf2a00165
370b191519abcd3956a065bb89eb9445
6a49ba414d53c304bddcbd4a501281cd
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cf7dc712c6b4fff1107f28f9bdac829b

aeca0aa59566b054ca9283cfc33e45a4

bidaidea@h-c0n2023:~\$ cd /conference bidaidea@h-c0n2023:/conference\$ cut -d "|" -f 1 conference Extratime.body > conference hashes.txt bidaidea@h-c0n2023:~\$ cat conference hashes.txt 1f083f5a820468e5438c32419525b798 SOURCE RESULTS c1146dfa30d3bce2f4ee6f5282786e3a ALIENVAULTMD5 ALIENVAULT: 1f083f5a820468e5438c32419525b798 | PULSES: 0 | 50de124907b4e6aa5adba60f9cc22ed0 VIRUSTOTAL: 1f083f5a820468e5438c32419525b798 | SCANNED VIRUSTOTAL MD5 0ee2b50c85a110689352fccfa77b5b18 ALIENVAULT: c1146dfa30d3bce2f4ee6f5282786e3a | PULSES: 0 | ALIENVAULTMD5 50de124907b4e6aa5adba60f9cc22ed0 VIRUSTOTAL MD5 VIRUSTOTAL: c1146dfa30d3bce2f4ee6f5282786e3a | SCANNED c18b690c9f7cf921d35d97e87766b209 cb8020836e77353f5229fe43d436e386 ALIENVAULT: 50de124907b4e6aa5adba60f9cc22ed0 | PULSES: 0 | ALIENVAULTMD5 97cf870f1d1fdc83640e3c8d8ec81c66 VIRUSTOTAL MD5 VIRUSTOTAL: 50de124907b4e6aa5adba60f9cc22ed0 | SCANNEI BackDoor.Rat.391, Trojan[Exploit]/Win32.ShellCode | fdb53152230e3beafccbc2aaf2a00165 ALIENVAULT: 0ee2b50c85a110689352fccfa77b5b18 | PULSES: 0 | ALIENVAULTMD5 370b191519abcd3956a065bb89eb9445 VIRUSTOTAL: 0ee2b50c85a110689352fccfa77b5b18 | SCANNED VIRUSTOTALMD5 6a49ba414d53c304bddcbd4a501281cd ALIENVAULTMD5 ALIENVAULT: c18b690c9f7cf921d35d97e87766b209 | PULSES: 0 | cf7dc712c6b4fff1107f28f9bdac829b aeca0aa5 ThreatPinch Bulk Lookups | Perform lookups on lists of observables VIRUSTOTAL: c18b690c9f7cf921d35d97e87766b209 | SCANNED VIRUSTOTALMD5 ALIENVAULT: cb8020836e77353f5229fe43d436e386 | PULSES: 0 | ALIENVAULTMD5 Settings | Customize Lookup List | Paste list here VIRLISTOTAL MDS ■ VIDIISTOTAI · ch8020836577353f5229fa/3d/366386 | SCANNET API Limit (in seconds): f083f5a820468e5438c32419525b798 Website Emulation (For 1146dfa30d3bce2f4ee6f5282786e3a Filtering): bulklookup.threatpinch.com 0de124907b4e6aa5adba60f9cc22ed0 Show All Pivots: Show Graph: 0ee2b50c85a110689352fccfa77b5b18

c1146dfa30d3bce2f4ee6f5282786e3a 50de124907b4e6aa5adba60f9cc22ed0 0ee2b50c85a110689352fccfa77b5b18 50de124907b4e6aa5adba60f9cc22ed0 c18b690c9f7cf921d35d97e87766b209 cb8020836e77353f5229fe43d436e386 97cf870f1d1fdc83640e3c8d8ec81c66 fdb53152230e3beafccbc2aaf2a00165 370b191519abcd3956a065bb89eb9445 6a49ba414d53c304bddcbd4a501281cd cf7dc712c6b4fff1107f28f9bdac829b aeca0aa59566b054ca9283cfc33e45a4



```
def check hash bazaar(hash):
    """Checks a hash agains the Malware Bazaar Database"""
    cached=cache.get('mb', hash)
    if cached is None:
        url="https://mb-api.abuse.ch/api/v1/"
        r = requests.post(url, data={'query':'get_info', 'hash':hash})
        if (r.status code==404):
            cached={
                'is known': 0,
        elif (r.status code==200):
            res=r.json()
            if res["query_status"]=="hash_not_found":
                cached={
                    'is_known': 0,
            elif res["query_status"]=="ok":
                cached={
                    'is known': 1,
                    'extra': res
        cache.set('mb', hash, cached)
    return cached
```

```
def capev2 check(hash, cape url):
   cape api url=cape url+'/apiv2'
   r = requests.get(cape api url+'/tasks/search/md5/'+hash)
   if (r.status code==404):
       print("\nSomething failed communicating with CAPE")
       return None
   else:
       tasks=r.json()['data']
       if len(tasks)==0:
           return False
       res={
            'score': 0,
            'detections': []
       print("CAPEv2 findings for "+hash+":")
       for task in tasks:
           cape_api_url+'/tasks/get/report/'+str(task['id'])
           if task['status']=="reported":
               q = requests.get(cape api url+'/tasks/get/report/'+str(task['id']))
               if (q.status code==200):
                   report=q.json()
                   print('\t target:'+task['target']+' ['+task['category']+'] score: '+str(report['malscore'])+"/10 -> "+cape url+'/analysis/'+str(task['id'])+'/')
                   res['score']=res['score']+report['malscore']
                   if 'detections' in report:
                       res['detections'].append(report['detections'])
           elif task['status']=="running" or task['status']=="reporting" or task['status']=="pending":
               return True
       res['score']=res['score']/len(tasks)
       return res
```

```
def capev2_check(hash, cape url):
   cape api url=cape url+'/apiv2'
   r = requests.get(cape api url+'/tasks/search/md5/'+hash)
   if (r.status code==404):
                                      def check hash circllu(hash):
       print("\nSomething failed communi
                                           """Checks a hash against de circl.lu known files database"""
       return None
                                           cached=cache.get('circllu', hash)
   else:
       tasks=r.json()['data']
                                           if cached is None:
       if len(tasks)==0:
                                                url="https://hashlookup.circl.lu/lookup/md5/%s" % (hash)
          return False
                                                r = requests.get(url)
       res={
                                                if (r.status code==404):
           'score': 0,
           'detections': []
                                                    cached={
                                                         'is known': 0,
       print("CAPEv2 findings for "+hash-
       for task in tasks:
                                                elif (r.status code==200):
           cape api url+'/tasks/get/report
           if task['status']=="reported"
                                                    res=r.json()
              q = requests.get(cape_api
                                                    cached={
              if (q.status code==200):
                                                         'is known': 1,
                  report=q.json()
                                                         'extra': res
                  print('\t target:'+ta:
                                                                                                                    e url+'/analysis/'+str(task['id'])+'/')
                  res['score']=res['scol
                  if 'detections' in re
                                                cache.set('circllu', hash, cached)
                      res['detections']
                                           return cached
           elif task['status']=="running'
              return True
       res['score']=res['score']/len(tasks)
       return res
```

```
def check hash ms(hash: str, MS API: str):
                          """Receives a hash and returns an object with the result"""
def capev2 check(hash,
                          cached=cache.get('ms', hash)
   cape api url=cape u
                          if cached is None:
   r = requests.get(ca
                              url="https://malshare.com/api.php?api_key=%s&action=details&hash=%s" % (MS_API, hash)
   if (r.status code==
                              r = requests.post(url)
      print("\nSometh:
      return None
                              res=r.json()
   else:
                              if len(res)>0:
      tasks=r.json()[
                                  if 'ERROR' in res:
      if len(tasks)==
                                       if res['ERROR']['CODE']==404:
          return False
      res={
                                           cached={
           'score': 0,
                                                'is malware': 0,
          'detections
                                                'extra': res
      print("CAPEv2 f:
      for task in task
                                       else:
          cape api ur
                                           print("UO")
          if task['sta
                                  else:
             q = req
             if (q.s
                                       cached={
                 rep
                                           'is malware': 1,
                 pri
                                                                                                                               +str(task['id'])+'/')
                                            'extra': res
                 res
                              else:
          elif task['
                                  cached={
              return
                                       'is malware': 0
      res['score']=re:
      return res
                              cache.set('ms', hash, cached)
                          return cached
```

```
def check hash ms(hash: str, MS API: str):
                             """Receives a hash and returns an object with the result"""
def capev2 check(hash, )
                             cached=cache.get('ms', hash)
   cape api url=cape_u
                             if cached is None:
   r = requests.get(ca
                                  url="https://malshare.com/api.php?api key=%s&action=details&hash=%s" % (MS API, hash)
   if (r.status code==
def check hash vt(hash: str, VT API: str):
    """Receives a hash and returns an object with the result"""
   cached=cache.get('vt', hash)
   if cached is None:
       client = vt.Client(VT API)
       file = client.get object("/files/"+hash)
       if (file.last analysis stats['undetected']+file.last analysis stats['harmless'])>0:
           is virus=(file.last analysis stats['malicious']+file.last analysis stats['suspicious'])/(file.last analysis stats['undetected']+file.last analysis stats['harmless'])
       else:
           is virus=(file.last analysis stats['malicious']+file.last analysis stats['suspicious'])
       cached={
           'is malware': is virus>1,
           'extra': {
               'undetected': file.last_analysis_stats['undetected'],
               'malicious': file.last analysis stats['malicious'],
               'suspicious': file.last analysis stats['suspicious'],
               'harmless': file.last_analysis_stats['harmless'],
       print(hash, cached)
       cache.set('vt', hash, cached)
       sleep(15) #TODO: implementar throttling de verdad
   return cached
           elit task
                                       cached={
                return
                                             'is malware': 0
       res['score']=re:
       return res
                                  cache.set('ms', hash, cached)
                             return cached
```

```
def check hash ms(hash: str, MS API: str):
                           """Receives a hash and returns an object with the result"""
def capev2 check(hash, )
                           cached=cache.get('ms', hash)
   cape api url=cape_u
                           if cached.
                                         check hash alienvault(hash: str, key: str):
   r = requests.get(ca
                                                                                                                     3 API, hash)
                               url='
   if (r.status code==
                                          """Receives a hash and returns an object with the result"""
def check hash vt(hash: str, VT API: str):
                                          cached=cache.get('alienvault', hash)
    """Receives a hash and returns an objec
                                         if cached is None:
   cached=cache.get('vt', hash)
   if cached is None:
                                              otx = OTXv2(key)
      client = vt.Client(VT API)
                                              result=file(otx, hash)
      file = client.get object("/files/"+
                                              if len(result) > 0:
      if (file.last analysis_stats['undet
          is virus=(file.last analysis st
                                                                                                                      ']+file.last analysis stats['harmless'])
                                                   print('Identified as potentially malicious')
       else:
                                                   #print(str(result))
          is virus=(file.last analysis st
                                                   cached={
       cached={
          'is malware': is virus>1,
                                                        'is malware': 1
          'extra': {
              'undetected': file.last ana
              'malicious': file.last anal
                                              else:
              'suspicious': file.last ana
                                                   #print('Unknown or not identified as malicious')
              'harmless': file.last_analy
                                                   cached={
                                                        'is malware': 0
      print(hash, cached)
      cache.set('vt', hash, cached)
                                              cache.set('alienvault', hash, cached)
      sleep(15) #TODO: implementar thrott
   return cached
                                              #sleep(15) #TODO: implementar throttling de verdad
           elit task
                                         return cached
              return
       res['score']=re:
       return res
                               cache.set('ms', hash, cached)
                           return cached
```

```
def check hashes mhr(hashes: set):
                                    """Receives a set of hashes to check and returns a list of objects with the results"""
                        def cl
                                    data=""
                                    for hash in hashes:
                                        if cache.get('mhr', hash) is None:
def capev2 check(hash,
                             Ci
                                            data=data+hash+"\r\n"
   cape api url=cape_u
   r = requests.get(ca
                                                                                                                                         nash)
                                    if data!="":
   if (r.status code==
def check_hash_vt(hash: str, VT_Al
                                        session = requests.session()
    """Receives a hash and return
                                        response=session.get('https://hash.cymru.com/', verify=False).text
   cached=cache.get('vt', hash)
                                        a=response.rfind('token')
   if cached is None:
                                        b=response.find("'",a+1)
       client = vt.Client(VT API)
                                        c=response.find("'",b+1)
       file = client.get object('
                                        token=response[b+1:c]
       if (file.last analysis sta
                                        headers = {
           is virus=(file.last a
                                                                                                                                         ist analysis stats['harmless'])
                                            "authorization": "Basic "+token,
       else:
           is virus=(file.last a
       cached={
                                        session.headers.update(headers)
           'is malware': is viru
                                        response = session.post('https://hash.cymru.com/v2/submitHashes', data=data, verify=False)
           'extra': {
                                        rjson=json.loads(response.text)
               'undetected': file
                                        if 'queries remaining' in rjson:
               'malicious': file
                                            print(str(rjson['queries remaining'])+" remaining queries at MHR")
               'suspicious': file
                                        if 'results' in rjson:
               'harmless': file.
                                            if rjson['results'] is not None:
                                                 for i in rjson['results']:
       print(hash, cached)
                                                     cache.set('mhr', i['hash'], i)
       cache.set('vt', hash, cacl
                                    res={}
       sleep(15) #TODO: implemen
                                    for hash in hashes:
   return cached
                                        data=cache.get('mhr', hash)
            elit task
                                        if data['antivirus detection rate'] is None:
                return
                                            data['antivirus detection rate']=0
       res['score']=re
                                        res[hash]={
       return res
                                             'is malware': data['antivirus detection rate']>0,
                                             'extra': data
                             re
                                    return res
```

```
pidgenx.dll -> application/x-dosexec [OK]
Microsoft.CognitiveServices.Speech.core.dll -> application/x-dosexec [OK]
expressrip.exe -> application/x-dosexec [OK]
Installer.exe -> application/x-dosexec [OK]
msvcp120.dll -> application/x-dosexec [OK]
combase.exe -> application/x-dosexec [OK]
mp3enc.exe -> application/x-dosexec [OK]
PDFPower.exe -> application/x-dosexec [OK]
KeyCheck.exe -> application/x-dosexec [OK]
KInfo.exe -> application/x-dosexec [OK]
ripsetup.exe -> application/x-dosexec [OK]
msvcr120.dll -> application/x-dosexec [OK]
```

cf7dc712c6b4fff1107f28f9bdac829b       ripsetup.exe       0/72       -       0       -       8.5/10       -       0%       -       -         97cf870f1d1fdc83640e3c8d8ec81c66       msvcr120.dll       0/65       -       0       -       1.6/10       -       0%       -       -         c18b690c9f7cf921d35d97e87766b209       KInfo.exe       0/56       -       0       -       0.4/10       -       0%       -       -         aeca0aa59566b054ca9283cfc33e45a4       combase.exe       55/71       -       0       X       5.9/10       -       17%       -       -         cb8020836e77353f5229fe43d436e386       msvcp120.dll       0/69       -       0       -       1.6/10       -       0%       -       -         50de124907b4e6aa5adba60f9cc22ed0       Installer.exe       3/68       -       0       -       10/10       -       0%       -       -         16083f5a820468e5438c32419525b798       mp3enc.exe       2/68       -       0       -       1.1/10       -       0%       -       -         0ee2b50c85a110689352fccfa77b5b18       Microsoft.Cogn       0/69       -       0       -       -       -       0%       -       Co	MD5	Fichero	VT	MalShare	AlienWare OTX	MalwareBazaar	CAPEv2	ClamAv	Malware Hash Registry	MISP	Circl.lu
97cf870f1d1fdc83640e3c8d8ec81c66 msvcr120.d11 0/65 - 0 0 - 1.6/10 - 0%	fdb53152230e3beafccbc2aaf2a00165	pidgenx.dll	0/69	-	0	-	1.3/10	-	0%	-	Conocido (que no seguro)
c18b690c9f7cf921d35d97e87766b209       KInfo.exe       0/56       -       0       -       0.4/10       -       0%       -       -         aeca0aa59566b054ca9283cfc33e45a4       combase.exe       55/71       -       0       X       5.9/10       -       17%       -       -         cb8020836e77353f5229fe43d436e386       msvcp120.d11       0/69       -       0       -       1.6/10       -       0%       -       -         50de124907b466a5adba60f9cc22ed0       Installer.exe       3/68       -       0       -       10/10       -       0%       -       -         1f083f5a820468e5438c32419525b798       mp3enc.exe       2/68       -       0       -       1.1/10       -       0%       -       -         370b191519abcd3956a065bb89eb9445       KeyCheck.exe       23/45       -       0       -       7.2/10       -       0%       -       -         0ee2b50c85a110689352fccfa77b5b18       Microsoft.Cogn itiveServices. Speech.core.d1       0/69       -       0       -       -       -       0%       -       -       -       -       0%       -       -       -       -       0%       -       -       -       -       -	cf7dc712c6b4fff1107f28f9bdac829b	ripsetup.exe	0/72	-	0	-	8.5/10	Ŧ	0%	-	-
aeca@aa59566b@54ca9283cfc33e45a4	97cf870f1d1fdc83640e3c8d8ec81c66	msvcr120.dll	0/65	-	0	-	1.6/10	+	0%	-	-
cb8020836e77353f5229fe43d436e386       msvcp120.dll       0/69       -       0       -       1.6/10       -       0%       -       -         50de124907b4e6aa5adba60f9cc22ed0       Installer.exe       3/68       -       0       -       10/10       -       0%       -       -         1f083f5a820468e5438c32419525b798       mp3enc.exe       2/68       -       0       -       1.1/10       -       0%       -       -         370b191519abcd3956a065bb89eb9445       KeyCheck.exe       23/45       -       0       -       7.2/10       -       0%       -       -         0ee2b50c85a110689352fccfa77b5b18       Microsoft.Cogn itiveServices. Speech.core.dl l       0/69       -       0       -       -       0%       -       -       Conocido (que no seguro)         6a49ba414d53c304bddcbd4a501281cd       PDFPower.exe       0/70       -       0       -       3.6/10       -       0%       -       -       -	c18b690c9f7cf921d35d97e87766b209	KInfo.exe	0/56	-	0	-	0.4/10	-	0%	-	-
50de124907b4e6aa5adba60f9cc22ed0 Installer.exe 3/68 - 0 - 10/10 - 0% 11/10 - 0% 11/10 - 0% 11/10 - 0% 11/10 - 0% 11/10 - 0% 11/10 - 0% 11/10 - 0% 11/10 - 0% 11/10 - 0%	aeca0aa59566b054ca9283cfc33e45a4	combase.exe	55/71	-	0	X	5.9/10	-	17%	-	-
1f083f5a820468e5438c32419525b798       mp3enc.exe       2/68       -       0       -       1.1/10       -       0%       -       -         370b191519abcd3956a065bb89eb9445       KeyCheck.exe       23/45       -       0       -       7.2/10       -       0%       -       -         0ee2b50c85a110689352fccfa77b5b18       Microsoft.Cogn itiveServices. Speech.core.dl l       0/69       -       0       -       -       -       0%       -       Conocido (que no seguro)         6a49ba414d53c304bddcbd4a501281cd       PDFPower.exe       0/70       -       0       -       3.6/10       -       0%       -       -       -	cb8020836e77353f5229fe43d436e386	msvcp120.dll	0/69	-	0	-	1.6/10	-	0%	-	-
370b191519abcd3956a065bb89eb9445 KeyCheck.exe	50de124907b4e6aa5adba60f9cc22ed0	Installer.exe	3/68	-	0	-	10/10	-	0%	-	-
0ee2b50c85a110689352fccfa77b5b18       Microsoft.Cogn itiveServices. Speech.core.dl l       0       -       -       -       0%       -       Conocido (que no seguro)         6a49ba414d53c304bddcbd4a501281cd       PDFPower.exe       0/70       -       0       -       3.6/10       -       0%       -       -	1f083f5a820468e5438c32419525b798	mp3enc.exe	2/68	-	0	+	1.1/10	-	0%	-	-
itiveServices. Speech.core.dl 1 (que no seguro)	370b191519abcd3956a065bb89eb9445	KeyCheck.exe	23/45	-	0	-	7.2/10	-	0%	-	-
	0ee2b50c85a110689352fccfa77b5b18	itiveServices.	0/69	-	0	-	-	-	0%	-	Conocido (que no seguro)
c1146dfa30d3bce2f4ee6f5282786e3a expressrip.exe 2/64 - 0 - 6.1/10 - 0%	6a49ba414d53c304bddcbd4a501281cd	PDFPower.exe	0/70	-	0	-	3.6/10	+	0%	-	-
	c1146dfa30d3bce2f4ee6f5282786e3a	expressrip.exe	2/64	-	0	-	6.1/10	-	0%	-	-



bidaidea@h-c0n2023:~\$ cd /superbowl bidaidea@h-c0n2023:/superbowl\$ cat superbowl.body

```
jedi@eadu:/data/superbowl$ cat superbowl.body
1f083f5a820468e5438c32419525b798|/mnt/windows02/Program Files (x86)/NCH Software/Components/mp3el/mp3enc.exe|398931|
c1146dfa30d3bce2f4ee6f5282786e3a|/mnt/windows02/Program Files (x86)/NCH Software/ExpressRip/expressrip.exe|398921|-r
50de124907b4e6aa5adba60f9cc22ed0|/mnt/windows02/Program Files (x86)/NCH Software/ExpressRip/expressripsetup_v5.00.ex
50de124907b4e6aa5adba60f9cc22ed0|/mnt/windows02/Users/Jedi/AppData/Local/Temp/ExpressRip-9004-1/Installer.exe|398912
370b191519abcd3956a065bb89eb9445|/mnt/windows02/Users/Jedi/Documents/KeyCheck v1.0.3.6 RU_EN_ES_VI_LV/KeyCheck.exe|3
aeca0aa59566b054ca9283cfc33e45a4|/mnt/windows02/Windows/Temp/combase.exe|235858|-rwxrwxrwx|0|0|804352|1675797199.806
```

bidaidea@h-c0n2023:/superbowl\$ mactime -b superbowl.body > superbowl.MACBtime.txt bidaidea@h-c0n2023:/superbowl\$ cat superbowl.MACBtime.txt

```
jedi@eadu:/data/superbowl$ mactime -b superbowl.body > superbowl.MACBtime.txt
jedi@eadu:/data/superbowl$ cat superbowl.MACBtime.txt
Tue May 06 2014 09:07:36
                          315904 ...b -rwxr-xr-x 0
                                                                    399830
                                                                             /mnt/windows01/Users/Jedi/Documents/KeyCheck v1.0.3.6 RU EN ES VI LV/KeyCheck.exe
Tue Feb 08 2022 17:37:32 1111568 m... -rwxr-xr-x 0
                                                                    398921
                                                                             /mnt/windows01/Program Files (x86)/NCH Software/ExpressRip/expressrip.exe
Tue Feb 07 2023 19:11:06
                          804352 m... -rwxr-xr-x 0
                                                                    235858
                                                                             /mnt/windows01/Windows/Temp/combase.exe
Tue Feb 07 2023 19:56:03
                          607760 ...b -rwxr-xr-x 0
                                                                    398912
                                                                             /mnt/windows01/Users/Jedi/AppData/Local/Temp/ExpressRip-9004-1/Installer.exe
                          607760 m.c. -rwxr-xr-x 0
Tue Feb 07 2023 19:56:04
                                                                    398912
                                                                             /mnt/windows01/Users/Jedi/AppData/Local/Temp/ExpressRip-9004-1/Installer.exe
                                                                             /mnt/windows01/Program Files (x86)/NCH Software/ExpressRip/expressripsetup v5.00.exe
                           607760 m.c. -rwxr-xr-x 0
                                                                    398965
Tue Feb 07 2023 19:56:17 1111568 ..cb -rwxr-xr-x 0
                                                                    398921
                                                                             /mnt/windows01/Program Files (x86)/NCH Software/ExpressRip/expressrip.exe
Tue Feb 07 2023 19:56:18
                                                                             /mnt/windows01/Program Files (x86)/NCH Software/Components/mp3el/mp3enc.exe
                          110592 macb -rwxr-xr-x 0
                                                                    398931
Tue Feb 07 2023 19:56:21
                                                                    398912
                                                                             /mnt/windows01/Users/Jedi/AppData/Local/Temp/ExpressRip-9004-1/Installer.exe
                          607760 .a.. -rwxr-xr-x 0
                          607760 ...b -rwxr-xr-x 0
                                                                    398965
                                                                             /mnt/windows01/Program Files (x86)/NCH Software/ExpressRip/expressripsetup v5.00.exe
                                                                    398965
                                                                             /mnt/windows01/Program Files (x86)/NCH Software/ExpressRip/expressripsetup v5.00.exe
Tue Feb 07 2023 19:56:22
                          607760 .a.. -rwxr-xr-x 0
Tue Feb 07 2023 20:06:50 1111568 .a.. -rwxr-xr-x 0
                                                                    398921
                                                                             /mnt/windows01/Program Files (x86)/NCH Software/ExpressRip/expressrip.exe
Tue Feb 07 2023 20:07:04
                          315904 m... -rwxr-xr-x 0
                                                                    399830
                                                                             /mnt/windows01/Users/Jedi/Documents/KeyCheck v1.0.3.6 RU EN ES VI LV/KeyCheck.exe
Tue Feb 07 2023 20:07:19
                                                                    399830
                                                                             /mnt/windows01/Users/Jedi/Documents/KeyCheck v1.0.3.6 RU EN ES VI LV/KeyCheck.exe
                           315904 ..c. -rwxr-xr-x 0
                                                                             /mnt/windows01/Users/Jedi/Documents/KeyCheck v1.0.3.6 RU EN ES VI LV/KeyCheck.exe
Tue Feb 07 2023 20:07:33
                           315904 .a.. -rwxr-xr-x 0
                                                                    399830
Tue Feb 07 2023 20:11:38
                          804352 ...b -rwxr-xr-x 0
                                                                    235858
                                                                             /mnt/windows01/Windows/Temp/combase.exe
Tue Feb 07 2023 20:13:03
                           804352 ..c. -rwxr-xr-x 0
                                                                    235858
                                                                             /mnt/windows01/Windows/Temp/combase.exe
                                                                    235858
Tue Feb 07 2023 20:13:19
                                                                             /mnt/windows01/Windows/Temp/combase.exe
                           804352 .a.. -rwxr-xr-x 0
```



# DIGITAL FORENSICS 🔓 INCIDENT RESPONSE

# Windows® Time Rules

\$Standard\_Information Win10 v1903



File Creation

Modified – Time of File Creation

Access – Time of File Creation

Metadata –

File Access

Modified – No Change

Access – Time of Access (No Change If System Volume > 128 GIB)

Motadata -

File Modification

> Modified – Time of Data Modification

Access – Time of Data Modification

Metadata -

File Rename

Modified – No Change

Access – No Change

Metadata –

File Copy (new file)

Modified – Inherited from Original

> Access – Time of File Copy

Metadata -

Local File Move

Modified – No Change

Access – No Change

Metadata -

Volume File Move

> Modified – Inherited

from Original

(move vla CLI)

Access – Time of File Move via CLI

Metadata –

Volume File Move

(cut/paste vla Explorer)

Modified – Inherited from Original

Access – Time of Cut/Paste

Metadata –

No Change

File

Deletion

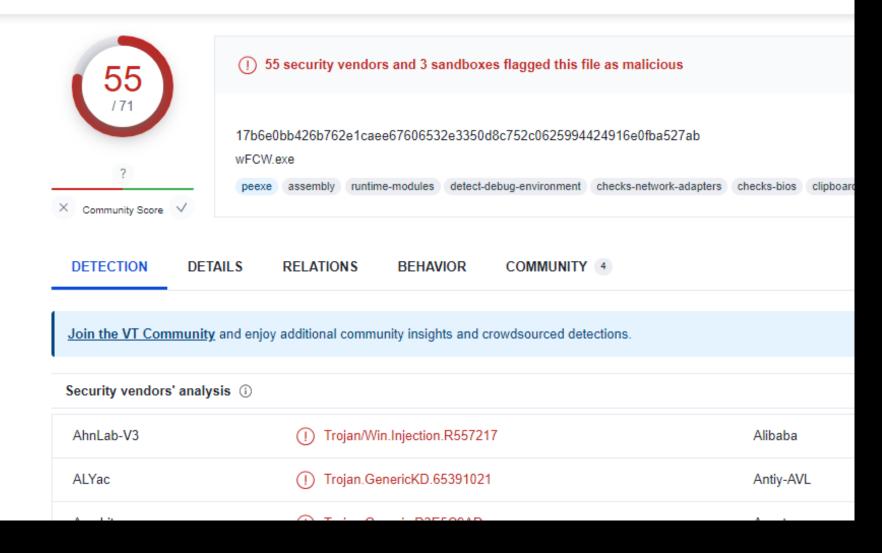
(shift+delete)

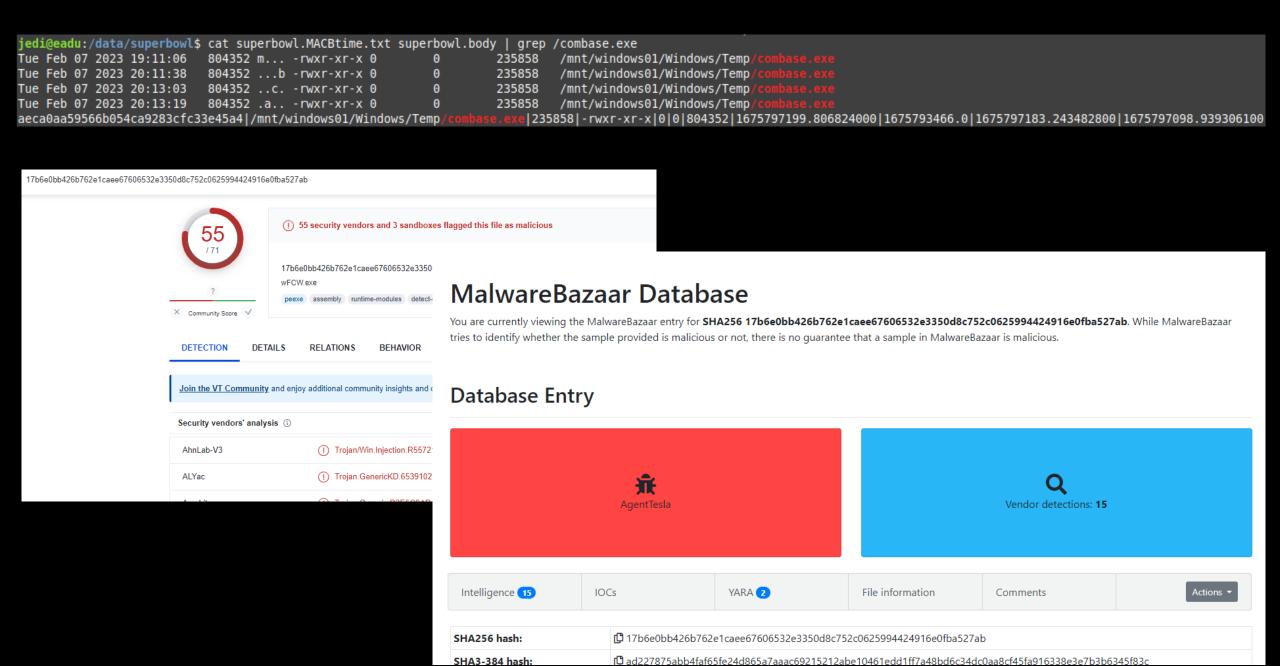
Modified -

No Change

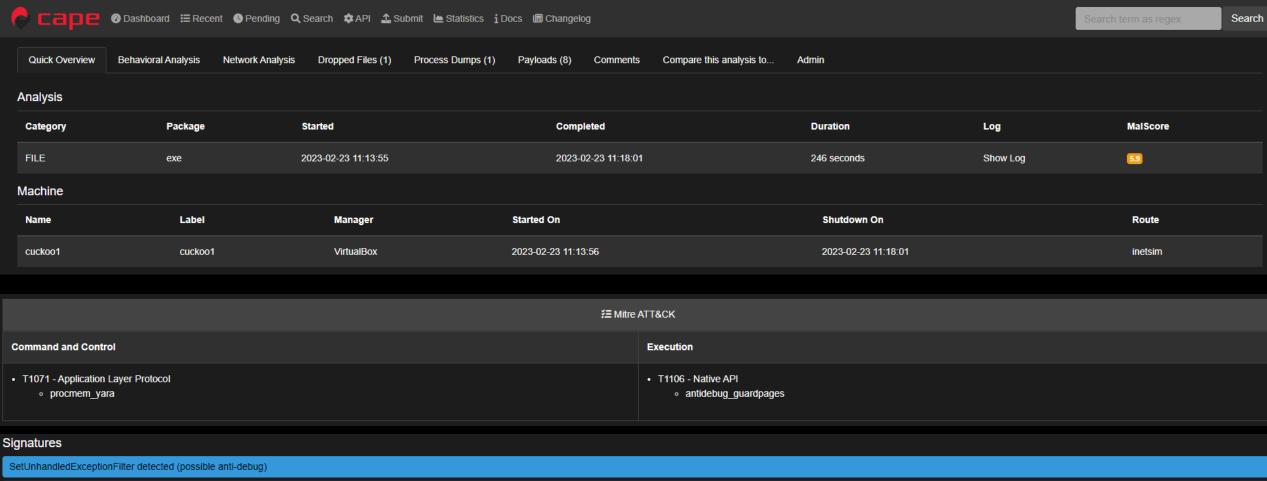
Access -

Motadata









At least one process apparently crashed during execution

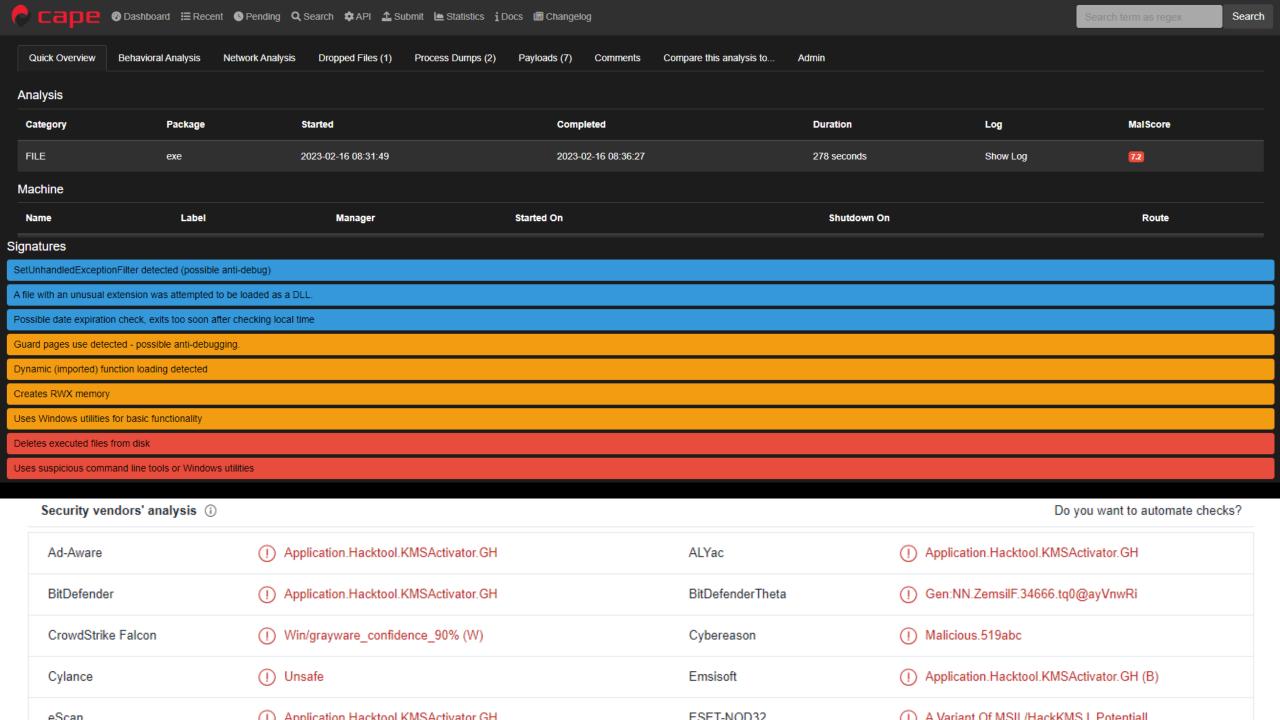
Guard pages use detected - possible anti-debugging.

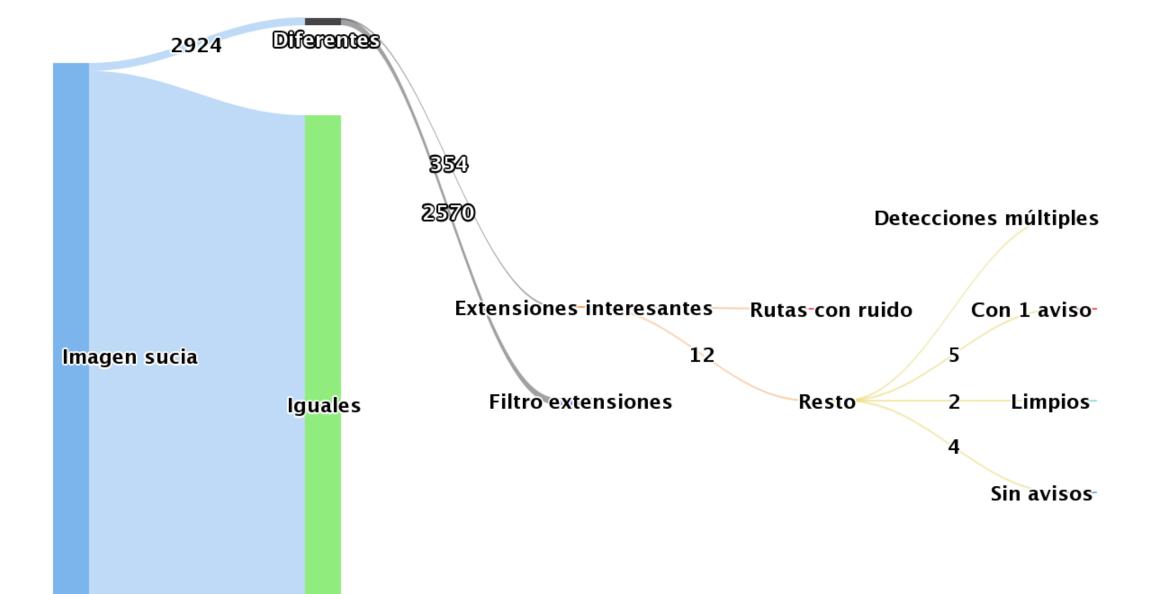
Dynamic (imported) function loading detected

Reads data out of its own binary image

Creates RWX memory

Yara rule detections observed from a process memory dump/dropped files/CAPE





bidaidea@h-c0n2023:~\$ sudo deluser rafa
bidaidea@h-c0n2023:~\$ sudo deluser luise
bidaidea@h-c0n2023:~\$ cd /
bidaidea@h-c0n2023:/\$ sudo rm -rf \*





https://github.com/bidaidea-cyber

https://github.com/kero99/macrobber-ng