A LITTLE GUIDE TO

SMB ENUMERATION

blacksidesecurity.site

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Contents

Introduction 😉 :

We will shine the light on the process or methodology for enumerating SMB services on the Target System/Server in this article. There are numerous tools and methods to perform enumeration, we will be finding different types of information on SMB throughout the article.

What is SMB? 🤔:

SMB or Server Message Block is the modernized concept of what was used to known as Common Internet File System. It works as an Application Layer Network Protocol. It is designed to be used as a File Sharing Protocol. Different Applications can on a system can read and write simultaneously to the files and request the server for services inside a network. One of the interesting functionalities of SMB is that it allows users to run it top of its TCP/IP protocol or other network protocols. Additionally, with the help of SMB, authorized users, applications, or software can access files or other resources on a remote server. Users can perform actions that include reading data, creating data, and updating data. Clients and servers communicate using something called SMB client request.

SMB Working 😀 :

The SMB Protocol delegates the client to communicate with other participants in the same network, allowing it to access files or services open to it in the network. In order for it to function the other device also requires the implemented network protocol and receive and process the respective client request using an SMB server application. Therefore, client computers using SMB connect to a supporting server using NetBIOS over TCP/IP, IPX/SPX, or NetBEUI. The initial establishment of the connection is required for exchanging information. Subsequent data transport is regulated by the provisions of the TCP protocol. SMB functions as a request-response or client-server protocol. Once the connection is established, the client's computer or program can then open, read/write, and access files similar to the file system on a local computer.

SMB Versions 😀 :

CIFS: The old version of SMB, which was included in Microsoft Windows NT 4.0 in 1996.

SMB 1.0 / SMB1: The version used in Windows 2000, Windows XP, Windows Server 2003 and Windows Server 2003 R2.

SMB 2.0 / SMB2: This version is used in Windows Vista and Windows Server 2008.

SMB 2.1 / SMB2.1: This version is used in Windows 7 and Windows Server 2008 R2.

SMB 3.0 / SMB3: This version used in Windows 8 and Windows Server 2012.

SMB 3.02 / SMB3: This version is used in Windows 8.1 and Windows Server 2012 R2.

SMB 3.1: This version is used in Windows Server 2016 and Windows 10.

Currently, the latest version of SMB is SMB 3.1.1, which was introduced with Windows 10 and Windows Server 2016. This version supports AES 128 GCM encryption in addition to AES 128 CCM encryption added in SMB3 and implements pre-authentication integrity check using SHA-512 hash. SMB 3.1.1 also makes secure negotiation mandatory when connecting to clients using SMB 2.x and higher.

SMB Security :

The SMB protocol supports two levels of security. The first is the share level. The server is protected at this level and each share has a password. The client computer or user has to enter the password to access data or files saved under the specific share. This is the only security model available in the Core and Core plus SMG protocol definitions. User level protection was later added to the SMB protocol. It is applied to individual files and each share is based on specific user access rights. Once a server authenticates the client, he/she is given a unique identification (UID) that is presented upon access to the server. The SMB protocol has supported individual security since LAN Manager 1.0 was implemented.

SMB Enumeration: Hostname :

Firstly, we will start the enumeration of the SMB by finding the hostname of the target machine. This can be done by various tools.

nmblookup :

We started with nmblookup tool. It is designed to make use of queries for the NetBIOS names and then map them to their subsequent IP addresses in a network. The options allow the name queries to be directed at a particular IP broadcast area or to a particular machine. All queries are done over UDP.

For unique names:

00: Workstation Service (workstation name)

03: Windows Messenger service

06: Remote Access Service

20: File Service (also called Host Record)

21: Remote Access Service client

1B: Domain Master Browser – Primary Domain Controller for a domain

1D: Master Browser

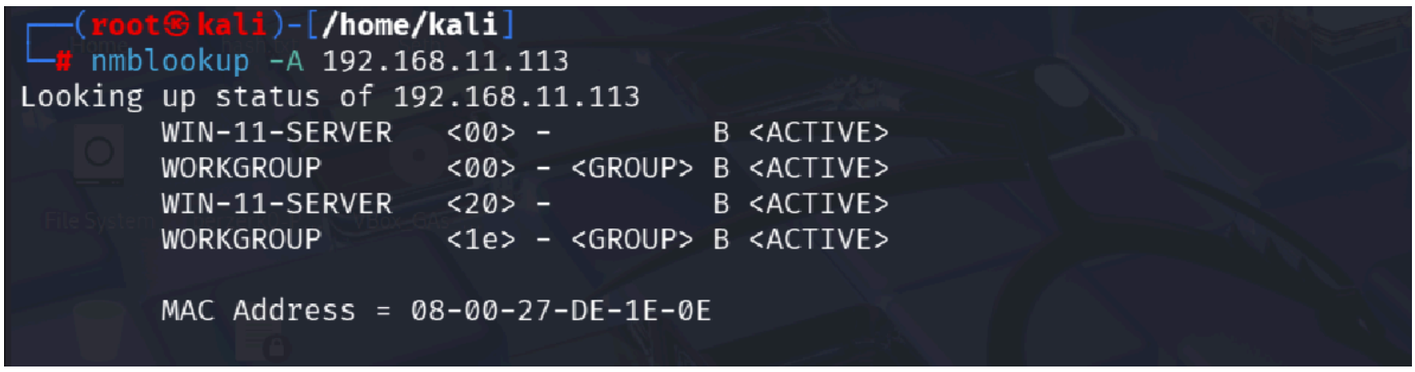
For group names:

00: Workstation Service (workgroup/domain name)

1C: Domain Controllers for a domain

1E: Browser Service Election

nmblookup -A 192.168.11.113



Here, we can see that we have enumerated the hostname to be DESKTOP-ATNONJ9.

nbtscan :

Moving Forward we used nbtscan tool. NBTscan is a program for scanning IP networks for NetBIOS name information. It sends NetBIOS status query to each address in supplied range and lists received information in human-readable form. For each responded host it lists IP address, NetBIOS computer name, logged-in user name and MAC address (such as Ethernet)

nbtscan 192.168.11.113

Finally, we can see that we have enumerated the hostname to be DESKTOP-ATNONJ9.

nbstat NSE Script :

This nmap script attempts to retrieve the target's NetBIOS names and MAC address. By default, the script displays the name of the computer and the logged-in user; if the verbosity is turned up, it displays all names the system thinks it owns. It also shows the flags that we studied in nmblookup tool.

nmap --script smb-os-discovery.nse 192.168.11.113

```
┌──(root㉿kali)-[/home/kali]
└─# nmap --script smb-os-discovery.nse  192.168.11.113
Starting Nmap 7.95 ( https://nmap.org ) at 2026-02-02 20:04 EST
Nmap scan report for 192.168.11.113 (192.168.11.113)
Host is up (0.0016s latency).
Not shown: 995 filtered tcp ports (no-response)
PORT     STATE SERVICE
135/tcp  open  msrpc
139/tcp  open  netbios-ssn
445/tcp  open  microsoft-ds
1433/tcp open  ms-sql-s
5985/tcp open  wsman
MAC Address: 08:00:27:DE:1E:0E (PCS Systemtechnik/Oracle VirtualBox virtual NIC)

Host script results:
| smb-os-discovery:
|   OS: Windows Server 2025 Standard Evaluation 26100 (Windows Server 2025 Standard Evaluation 6.3)
|   Computer name: win-11-server
|   NetBIOS computer name: WIN-11-SERVER\x00
|   Workgroup: WORKGROUP\x00
|_  System time: 2026-02-02T17:04:35-08:00

Nmap done: 1 IP address (1 host up) scanned in 4.96 seconds
```

Finally, we can see that we have enumerated the hostname to be DESKTOP-ATNONJ9.

nbtstat :

This Windows command displays the NetBIOS over TCP/IP (NetBT) protocol statistics. It can read the NetBIOS name tables for both the local computer and remote computers. It can also read the NetBIOS name cache. This command allows a refresh of the NetBIOS name cache and the names registered with Windows Internet Name Service (WINS). When used without any parameters, this command displays Help Information. This command is available only if the Internet Protocol (TCP/IP) protocol is installed as a component in the properties of a network adapter in Network Connections

nbtstat -A 192.168.11.113

```
C:\Users\PC>nbtstat -A 192.168.11.113

vEthernet (Default Switch):
Node IpAddress: [172.27.192.1] Scope Id: []

    Host not found.

Ethernet 6:
Node IpAddress: [192.168.55.1] Scope Id: []

    Host not found.

OpenVPN Connect DCO Adapter:
Node IpAddress: [0.0.0.0] Scope Id: []

    Host not found.

Connexion au réseau local:
Node IpAddress: [0.0.0.0] Scope Id: []

    Host not found.

Ethernet:
Node IpAddress: [0.0.0.0] Scope Id: []

    Host not found.

Wi-Fi:
Node IpAddress: [192.168.11.111] Scope Id: []

           NetBIOS Remote Machine Name Table

       Name               Type         Status
    ---------------------------------------------
    WIN-11-SERVER  <00>  UNIQUE      Registered
    WORKGROUP      <00>  GROUP       Registered
    WIN-11-SERVER  <20>  UNIQUE      Registered
    WORKGROUP      <1E>  GROUP       Registered

    MAC Address = 08-00-27-DE-1E-0E
```

Finally, we can see that we have enumerated the hostname to be DESKTOP-ATNONJ9

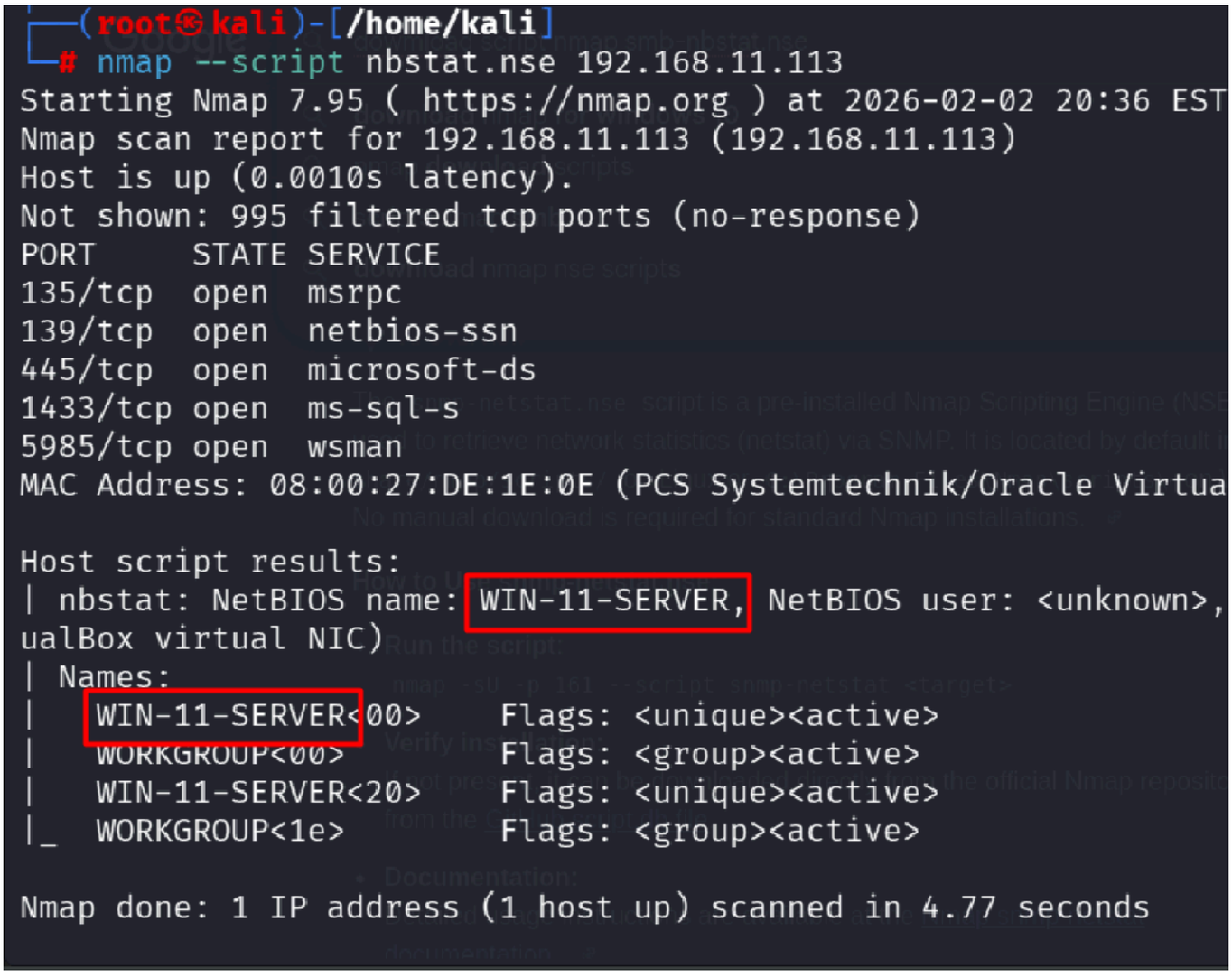
mb-os-discovery NSE Script

This NSE script attempts to determine the operating system, computer name, domain, workgroup, and current time over the SMB protocol (ports 445 or 139). You achieve it by initiating a session with the anonymous account (or with a proper user account, if one is given; it likely doesn't make a difference); in response to a session starting, the server will send back all this information.

The following fields may be included in the output, depending on the circumstances (e.g., the workgroup name is mutually exclusive with domain and forest names) and the information available:

- **OS**
- **Computer name**
- **Domain name**
- **Forest name**
- **FQDN**
- **NetBIOS computer name**
- **NetBIOS domain name**
- **Workgroup**
- **System tim**

nmap --script nbstat.nse 192.168.11.113



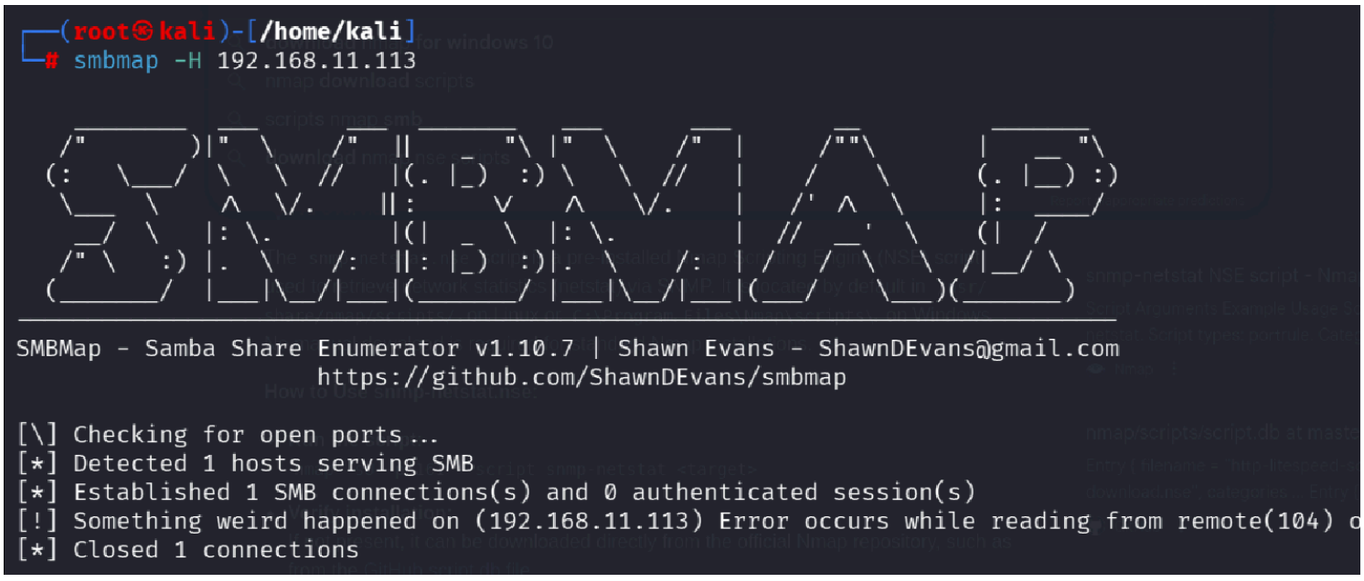
SMB Enumeration: Share and Null Session 😀:

As we discussed earlier that SMB works on sharing files and resources. In order to transfer these files or resources, there are data streams that are called shares. There are public shares that are accessible to everyone on the network and then there are the user-specific shares. Let's enumerate these shares.

SMBMap 😄:

SMBMap allows users to enumerate samba share drives across an entire domain. List share drives, drive permissions, share contents, upload/download functionality, file name auto-download pattern matching, and even execute remote commands. This tool was designed with pen testing in mind and is intended to simplify searching for potentially sensitive data across large networks.

smbmap -H 192.168.11.113



smbmap -H 192.168.11.113 -u Administrator -p Anonymous_1212

```
┌──(root㉿kali)-[/home/kali]
└─# smbmap -H 192.168.11.113 -u Administrator -p Anonymous_1212

    ________  ___      ___  _____  ___  ___  ________    ___      ___  ________
   /"       )|"  \    /"  ||\"   \|"  \/"  ||"      "\  |"  \    /"  ||"      "\
  (:   \___/  \   \  //   ||.\\   \\   \  //  (.  ___:)  \   \  //   |(.  ___:)
   \___  \    /\  \/.    ||: \.   \\  \/. ./  |: \   \    /\  \/.    ||: \   \
    __/  \   |: \.        ||.  \    \\    /   (| \___)   |: \.        |(| \___)
   /" \   :) |.  \        /:  |    /\\   /    |.  :)     |.  \        /:  :)
  (_______/  |___|\__/|___|(_____/ |___|\__/|___|(_____/ |___|\__/|___|(_____/
-----------------------------------------------------------------------------
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: 192.168.11.113:445      Name: 192.168.11.113            Status: ADMIN!!!
        Disk                                                    Permissions     Comment
        ----                                                    -----------     -------
        ADMIN$                                                  READ, WRITE     Remote Admin
        C$                                                      READ, WRITE     Default share
        IPC$                                                    READ ONLY       Remote IPC
        partage                                                 READ, WRITE
        Public                                                  READ ONLY
        SQL2025                                                 READ, WRITE
        Users                                                   READ, WRITE
[*] Closed 1 connections
```

smbclient :

smbclient is samba client with an "ftp like" interface. It is a useful tool to test connectivity to a Windows share. It can be used to transfer files, or to look at share names. In addition, it has a nifty ability to 'tar' (backup) and restore files from a server to a client and vice versa. We enumerated the target machine and found the guest share using the smbclient directly. Then we connect to the guest share and see that there is a text file by the name of file.txt. We can download it using the get command

smbclient -L 192.168.11.113

smbclient //192.168.11.113/

get file.txt

```
┌──(root㉿kali)-[/home/kali]
└─# smbclient -L 192.168.11.113
Password for [WORKGROUP\root]:

        Sharename       Type      Comment
        ---------       ----      -------
        ADMIN$          Disk      Remote Admin
        C$              Disk      Default share
        IPC$            IPC       Remote IPC
        partage         Disk
        Public          Disk
        SQL2025         Disk
        Users           Disk
Reconnecting with SMB1 for workgroup listing.
do_connect: Connection to 192.168.11.113 failed (Error NT_STATUS_RESOURCE_NAME_NO
Unable to connect with SMB1 -- no workgroup available
```

smbclient //192.168.11.113/Users/

```
┌──(root㉿kali)-[/home/kali]
└─# smbclient //192.168.11.113/Users/
Password for [WORKGROUP\root]:
Try "help" to get a list of possible commands.
smb: \> ls
  .                                   DR        0  Mon Feb  2 20:46:48 2026
  ..                                 DHS        0  Mon Feb  2 20:46:48 2026
  Administrator                        D        0  Wed Jan 21 19:09:46 2026
  All Users                        DHSrn        0  Mon Apr  1 03:26:42 2024
  Default                            DHR        0  Thu Jan 15 13:07:54 2026
  Default User                     DHSrn        0  Mon Apr  1 03:26:42 2024
  desktop.ini                        AHS      174  Mon Apr  1 03:01:26 2024
  haker                                D        0  Sat Jan 17 09:55:26 2026
  Public                              DR        0  Thu Jan 15 13:09:50 2026

                12908287 blocks of size 4096. 5580128 blocks available
smb: \>
```

get File.txt

```
┌──(root㉿kali)-[/home/kali]
└─# smbclient //192.168.11.113/Users/
Password for [WORKGROUP\root]:
Try "help" to get a list of possible commands.
smb: \> ls
  .                                   DR        0  Mon Feb  2 21:00:52 2026
  ..                                 DHS        0  Mon Feb  2 20:46:48 2026
  Administrator                        D        0  Wed Jan 21 19:09:46 2026
  All Users                        DHSrn        0  Mon Apr  1 03:26:42 2024
  Default                            DHR        0  Thu Jan 15 13:07:54 2026
  Default User                     DHSrn        0  Mon Apr  1 03:26:42 2024
  desktop.ini                        AHS      174  Mon Apr  1 03:01:26 2024
  File.txt.txt                         A       16  Mon Feb  2 21:01:13 2026
  haker                                D        0  Sat Jan 17 09:55:26 2026
  Public                              DR        0  Mon Feb  2 20:58:48 2026

                12908287 blocks of size 4096. 5579938 blocks available
smb: \> get File.txt.txt
getting file \File.txt.txt of size 16 as File.txt.txt (1.7 KiloBytes/sec) (average 1.7 KiloBytes/sec)
smb: \>
```

Then we enumerate the user-specific share. We connect to the SMB as user raj and find a share by the name of 'share'. We reconfigured the smbclient command to access the share and we see that we find a file named raj.txt. Again, we can download this file as well as using the get command.

Smb-enum-shares NSE Script 😉:

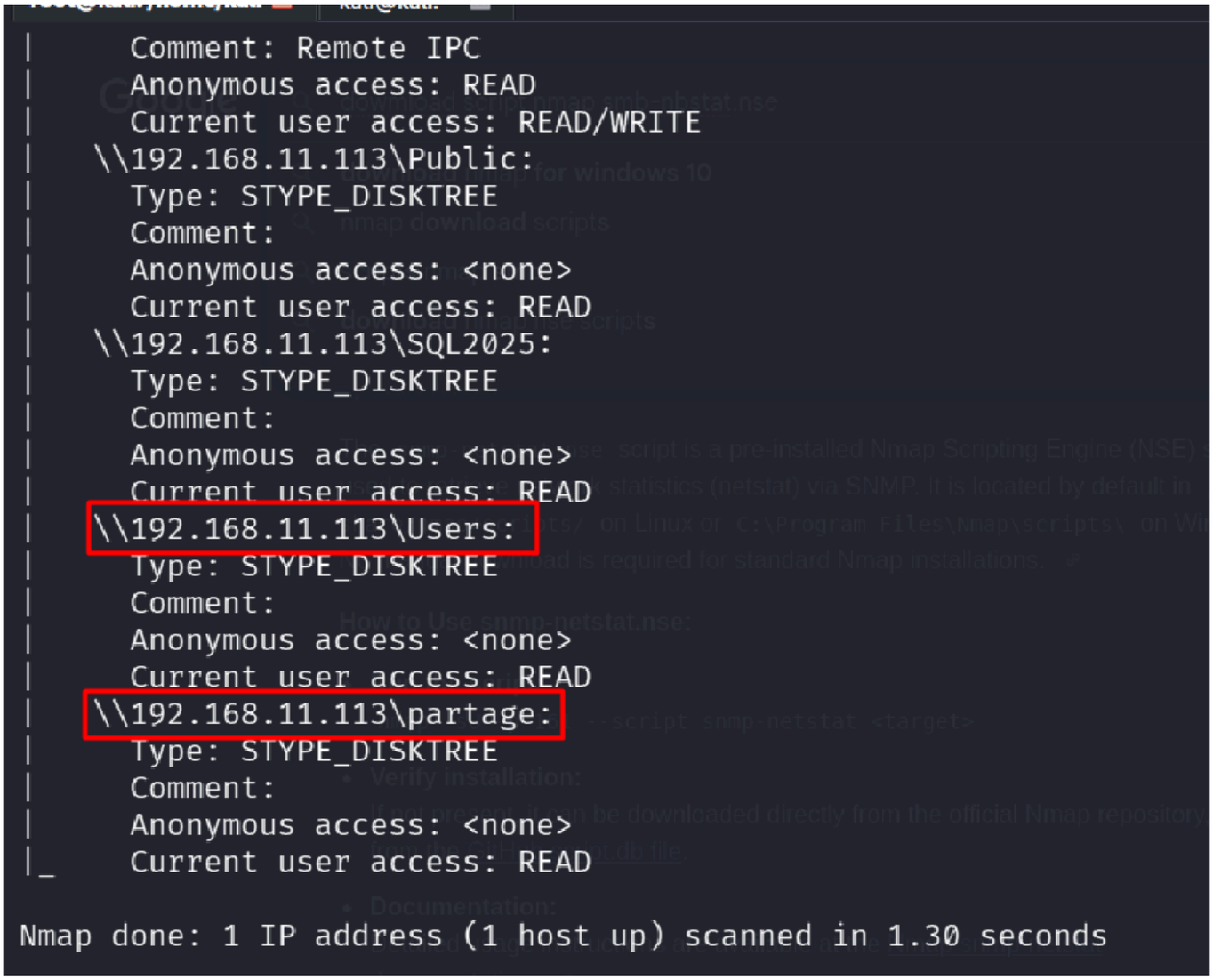
This NSE scirpt attempts to list shares using the srvsvc.NetShareEnumAll MSRPC function and retrieve more information about them using srvsvc.NetShareGetInfo. If access to those functions is denied, the system checks a list of common share names. An administrator account is required to call NetShareGetInfo on all versions of Windows up to 2003, as well as Windows Vista, Windows 7, and Windows 10, if UAC is turned down. Even if NetShareEnumAll is restricted, users attempting to connect to a share will always reveal its existence. So, if NetShareEnumAll fails, the script uses a pre generated list of shares, based on a large test network. If any of those succeed, the script records them. After finding a list of shares, the script attempts to connect to each of them anonymously, which divides them into "anonymous" for shares that the NULL user can connect to, or "restricted" for shares that require a user account.

nmap --script smb-enum-shares -p139,445 192.168.11.113

```
┌──(root㉿kali)-[/home/kali]
└─# nmap --script smb-enum-shares.nse -p 139,445  192.168.11.113
Starting Nmap 7.95 ( https://nmap.org ) at 2026-02-02 21:09 EST
Nmap scan report for 192.168.11.113 (192.168.11.113)
Host is up (0.00069s latency).

PORT    STATE SERVICE
139/tcp open  netbios-ssn
445/tcp open  microsoft-ds
MAC Address: 08:00:27:DE:1E:0E (PCS Systemtechnik/Oracle VirtualBox virtual NIC)

Host script results:
| smb-enum-shares:
|   account_used: guest
|   \\192.168.11.113\ADMIN$:
|     Type: STYPE_DISKTREE_HIDDEN
|     Comment: Remote Admin
|     Anonymous access: <none>
|     Current user access: <none>
|   \\192.168.11.113\C$:
|     Type: STYPE_DISKTREE_HIDDEN
|     Comment: Default share
|     Anonymous access: <none>
|     Current user access: <none>
```



Then, we can see that we have the shares listed although the Access is Denied the existence of the share is confirmed.

Net view 😀:

Displays a list of domains, computers, or resources that are being shared by the specified computer. Used without parameters, net view displays a list of computers in your current domain. This time we are on the Windows machine. We used the net view with the /All parameter to list all the shares on the target machine.

net view \\192.168.11.113 /All

```
C:\Users\Administrator>net view \\192.168.11.113 /All
Shared resources at \\192.168.11.113


Share name  Type  Used as  Comment

-------------------------------------------------------------------------------
ADMIN$      Disk           Remote Admin
C$          Disk           Default share
IPC$        IPC            Remote IPC
partage     Disk
Public      Disk
SQL2025     Disk
Users       Disk  (UNC)
The command completed successfully.


C:\Users\Administrator>net use \\192.168.11.113\Users
Local name
Remote name       \\192.168.11.113\Users
Resource type     Disk
Status            OK
# Opens          0
# Connections    1
The command completed successfully.
```

```
C:\Users\Administrator>net use
New connections will be remembered.


Status       Local     Remote                    Network

-------------------------------------------------------------------------------
OK                     \\192.168.11.113\Users    Microsoft Windows Network
The command completed successfully.
```

hen we changed the command by adding the share, and we can read the contents of that share.

Now using the copy command, we can download the file from share.

Metasploit: smb_enumshares 🤨:

The smb_enumshares module enumerates any SMB shares that are available on a remote system.

You need the IP Address of the target server or machine followed by the set of credentials that can

be used to access the share.

use auxiliary/scanner/smb/smb_enumshares

set rhosts 192.168.11.113

set smbuser Administrator

set smbpass Anonymous_1212

exploit

```
View the full module info with the info, or info -d command.

msf auxiliary(scanner/smb/smb_enumshares) > set RHOST 192.168.11.113
RHOST => 192.168.11.113
msf auxiliary(scanner/smb/smb_enumshares) > set smbuser Administrator
smbuser => Administrator
msf auxiliary(scanner/smb/smb_enumshares) > set smbpass Anonymous_1212
smbpass => Anonymous_1212
msf auxiliary(scanner/smb/smb_enumshares) > exploit
[-] 192.168.11.113:139 - Login Failed: Unable to negotiate SMB1 with the remote host: Not a valid SMB packet
[!] 192.168.11.113:139 - peer_native_os is only available with SMB1 (current version: SMB3)
[!] 192.168.11.113:139 - peer_native_lm is only available with SMB1 (current version: SMB3)
/usr/share/metasploit-framework/vendor/bundle/ruby/3.3.0/gems/recog-3.1.23/lib/recog/fingerprint/regexp_factory.rb:34:
g: nested repeat operator '+' and '?' was replaced with '*' in regular expression
[+] 192.168.11.113:139 - ADMIN$ - (DISK|SPECIAL) Remote Admin
[+] 192.168.11.113:139 - C$ - (DISK|SPECIAL) Default share
[+] 192.168.11.113:139 - IPC$ - (IPC|SPECIAL) Remote IPC
[+] 192.168.11.113:139 - partage - (DISK)
[+] 192.168.11.113:139 - Public - (DISK)
[+] 192.168.11.113:139 - SQL2025 - (DISK)
[+] 192.168.11.113:139 - Users - (DISK)
[*] 192.168.11.113: - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf auxiliary(scanner/smb/smb_enumshares) >
```

CrackMapExec 😉:

CrackMapExec (a.k.a CME) is a post-exploitation tool that helps automate assessing the security of large Active Directory networks. Built with stealth in mind, CME follows the concept of "Living off the Land": abusing built-in Active Directory features/protocols to achieve its functionality and allowing it to evade most endpoint protection/IDS/IPS solutions. Additionally, CrackMapExec can Map the network hosts, Generate Relay List, enumerate shares and access, enumerate active sessions, enumerate disks, enumerate logged on users, enumerate domain users, Enumerate Users by bruteforcing RID, enumerate domain groups, enumerate local groups etc.

crackmapexec smb 192.168.11.113 -u 'Administrator' -p 'Anonymous_1212' –-Users

```
┌──(root㉿kali)-[/home/kali]
└─# crackmapexec smb 192.168.11.113 -u 'Administrator' -p 'Anonymous_1212' --Users
SMB         192.168.11.113  445    WIN-11-SERVER    [*] Windows Server 2025 Standard Evaluation 26100 x64 (name:WIN-11-SERVER)
(signing:False) (SMBv1:True)
SMB         192.168.11.113  445    WIN-11-SERVER    [+] win-11-server\Administrator:Anonymous_1212 (Pwn3d!)
```

Then, we can see different shares and the permissions that are allowed on that particular share.

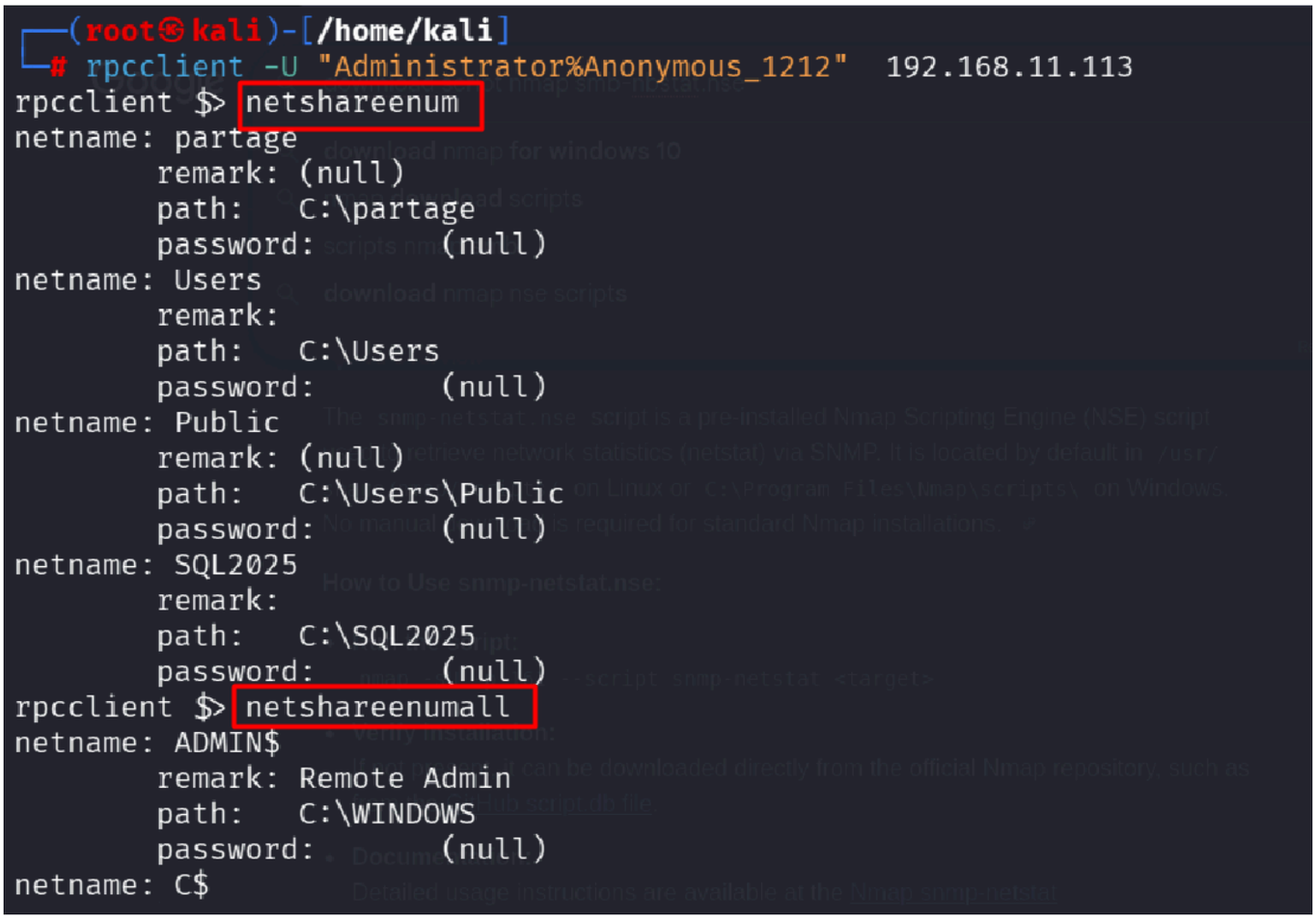
rpcclient 😉:

rpcclient is a utility initially developed to test MS-RPC functionality in Samba itself. It has undergone several stages of development and stability. Many system administrators have now written scripts around it to manage Windows NT clients from their UNIX workstation. We will be using it to enumerate the users on the SMB shares using the option of netshareenum as shown in the image below.

rpcclient -U "" -N 192.168.11.113

netshareenum

netshareenum



netshareenumall

```
rpcclient $> netshareenumall
netname: ADMIN$
        remark: Remote Admin
        path:   C:\WINDOWS
        password:       (null)
netname: C$
        remark: Default share
        path:   C:\
        password:       (null)
netname: IPC$
        remark: Remote IPC
        path:
        password:       (null)
netname: partage
        remark:
        path:   C:\partage
        password:       (null)
netname: Public
        remark:
        path:   C:\Users\Public
        password:       (null)
netname: SQL2025
        remark:
        path:   C:\SQL2025
```

SMB Enumeration: Vulnerability Scanning 😉

We enumerate a SMB server to compromise it, as we need to enumerate and find possible vulnerabilities that we can use to exploit the server. In order to do this in an optimized method, we can perform Vulnerability Scanning. There might be multiple tools to perform this kind of Scanning but here we will be focusing on this NSE script.

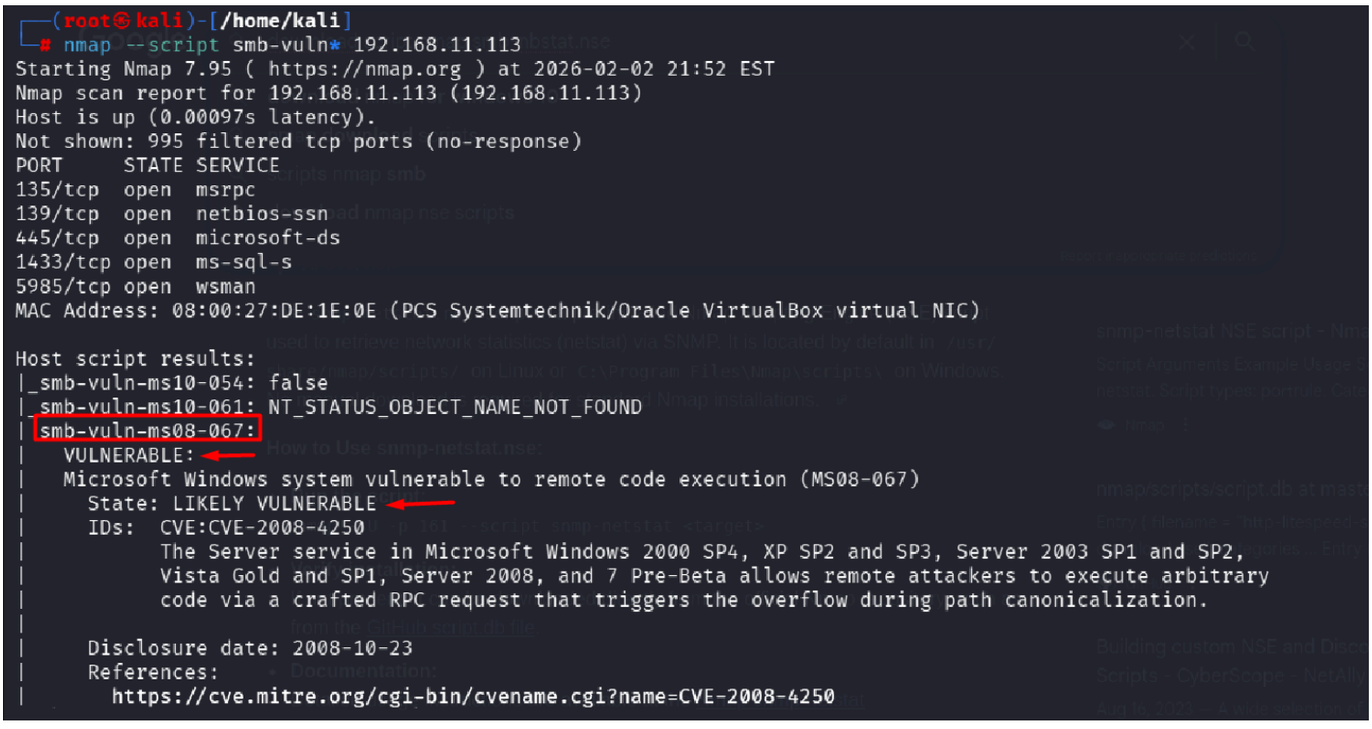
smb-vuln NSE Script 😄

Nmap in past used to have a script by the name of smb-check-vulns. It used to scan the target server for the various vulnerabilities such as:

- **conficker**
- **cve2009-3103**
- **ms06-025**
- **ms07-029**
- **regsvc-dos**
- **ms08-067**

Then the script was divided into single vulnerability checks that can run individually, such as smb-vuln-ms08-067. Hence to check all SMB vulnerabilities available in the Nmap Scripting Engine we use the * with the script.

nmap --script smb-vuln* 192.168.11.113



SMB Enumeration: Users 😀:

In a Windows environment, the system assigns each user a unique identifier called Security ID or SID, which controls access to various resources like Files, Registry keys, network shares, etc. Hence, users shouldn't compromise their SID.

Metasploit: smb_lookupsid 🤠

The smb_lookupsid module brute-forces SID lookups on a range of targets to determine what local users exist in the system. Knowing what users exist on a system can greatly speed up any further brute-force logon attempts later on.

use auxiliary/scanner/smb/smb_lookupsid

set rhosts 192.168.11.113

set smbuser Administrator

set smbpass Anonymous_1212

exploit

```
set RhoSTS     set Rhostname
msf auxiliary(scanner/smb/smb_lookupsid) > set Rhosts 192.168.11.113
Rhosts ⇒ 192.168.11.113
msf auxiliary(scanner/smb/smb_lookupsid) > set smbpass Anonymous_1212
smbpass ⇒ Anonymous_1212
msf auxiliary(scanner/smb/smb_lookupsid) > set smbuser Administrator
smbuser ⇒ Administrator
msf auxiliary(scanner/smb/smb_lookupsid) > ex
exit     exploit
msf auxiliary(scanner/smb/smb_lookupsid) > exploit
[*] 192.168.11.113:445 - PIPE(lsarpc) LOCAL(WORKGROUP - null) DOMAIN(WIN-11-SERVER - S-1-5-21-2836125315-
[*] Trying RID 4000 / 4000
SMB Lookup SIDs Output
═══════════════════════

    Type   Name                                  RID
    ────   ────                                  ───
    User   Administrator                         500
    User   Guest                                 501
    User   DefaultAccount                        503
    User   WDAGUtilityAccount                    504
    Group  None                                  513
    User   test                                  1004
    User   haker                                 1006
    Alias  SQLServer2005SQLBrowserUser$WIN-11-SERVER  1007

[*] 192.168.11.113: - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
```

Here, we can see that through enumerating SMB we have extracted two users: Administrator and hacker

mpacket: Lookupsid 😀

A Security Identifier (SID) is a unique value of variable length that is used to identify a user account.

Through a SID User Enumeration, we can extract information about what users exist and their data.

Lookupsid script can enumerate both local and domain users. There is a Metasploit module too for

this attack. If you are planning on injecting a target server with a golden or a silver ticket then one of

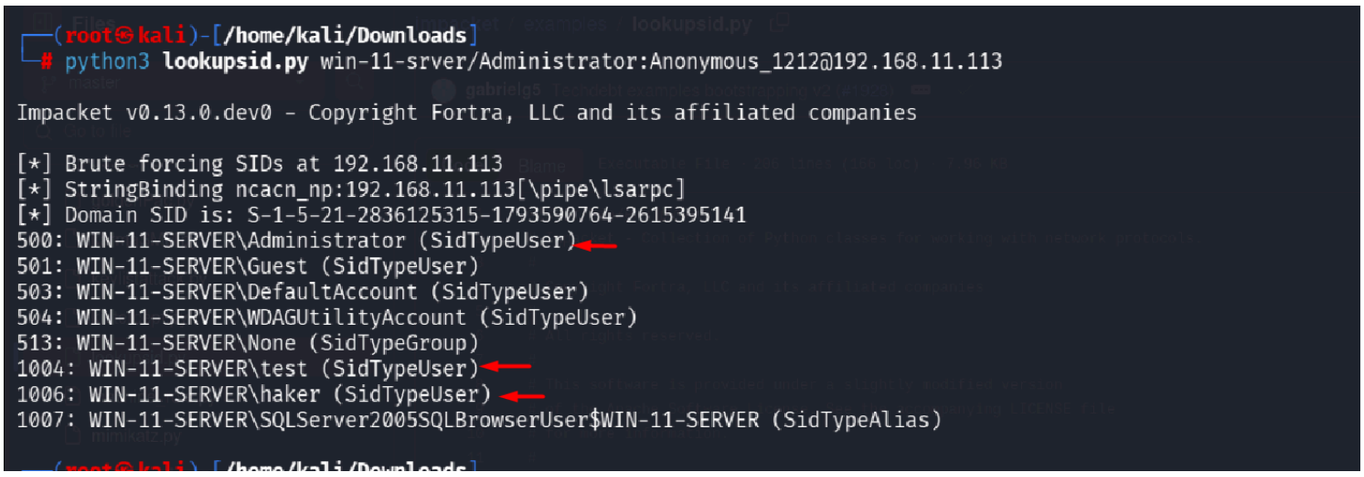
the things that are required is the SID of the 500 user. Lookupsid.py can be used in that scenario.

When we provide the following parameters to the Lookupsid in such a format as shown below.

Requirements:

- **Domain**
- **Username**
- **Password/Password Hash**
- **Target IP Address.**

python3 lookupsid.py win-11-srver/Administrator:Anonymous_1212@192.168.11.113



SMB Enumeration: Enum4Linux 😄:

Enum4linux is a tool that developers designed to detect and extract data or enumerate from

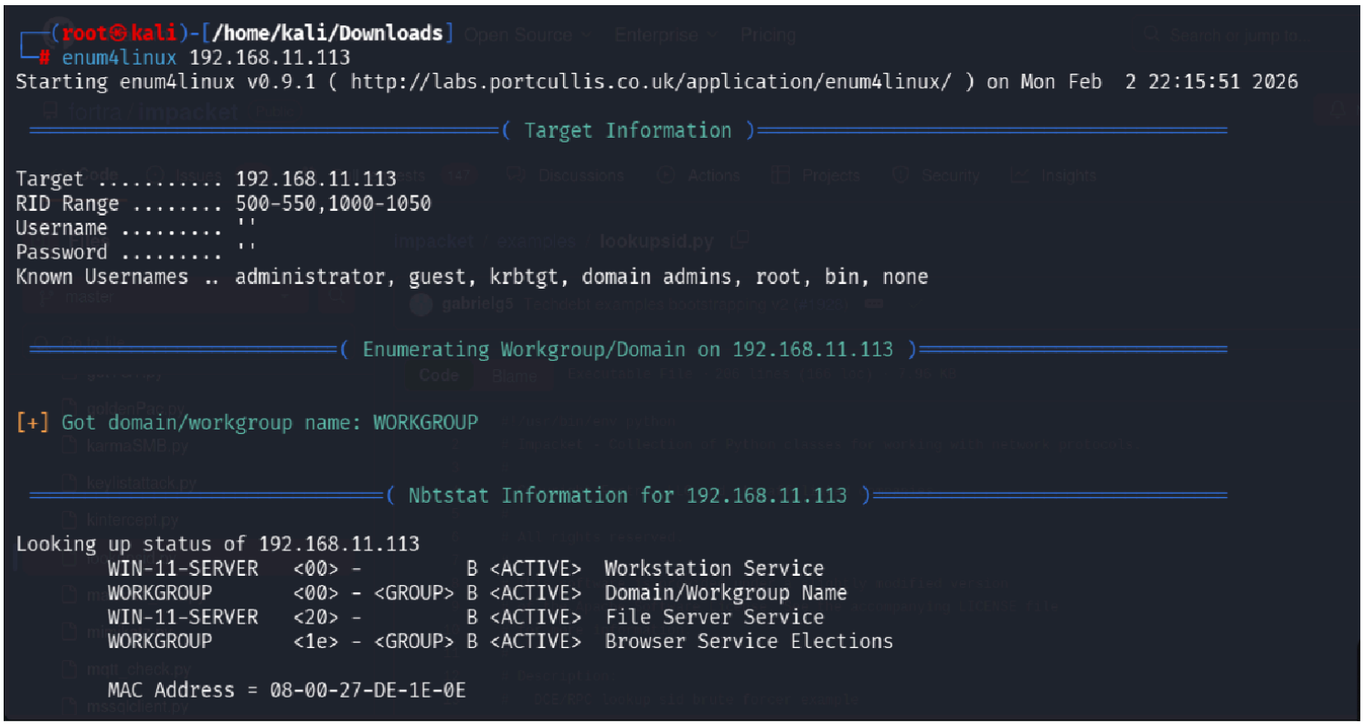
Windows and Linux operating systems, including SMB hosts on a network. Enum4linux can discover

the following:

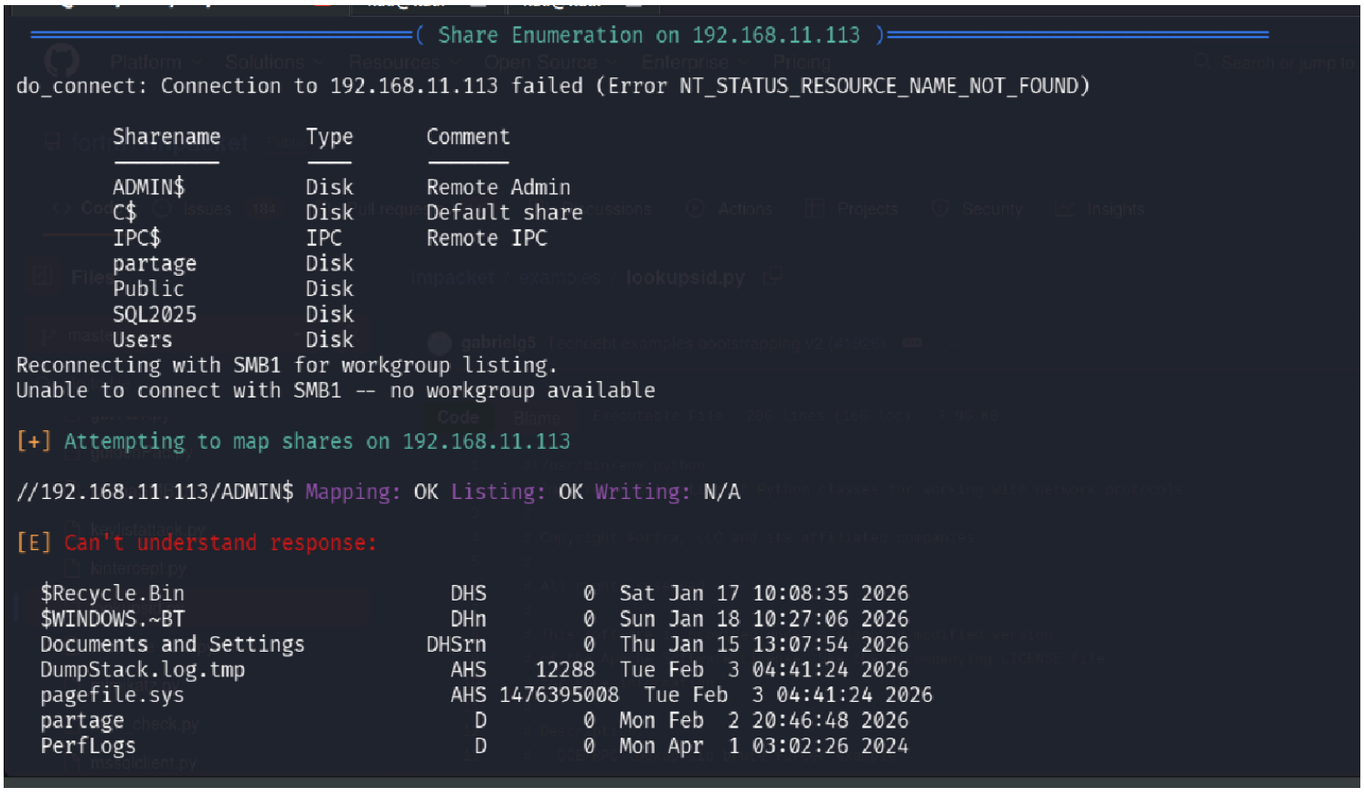
- **Domain and group membership**
- **User listings**
- **Shares on a device (drives and folders)**
- **Password policies on a target**
- **The operating system of a remote target**
- **To begin with, we start a normal scan using enum4linux. It then extracts the RID Range, Usernames,**

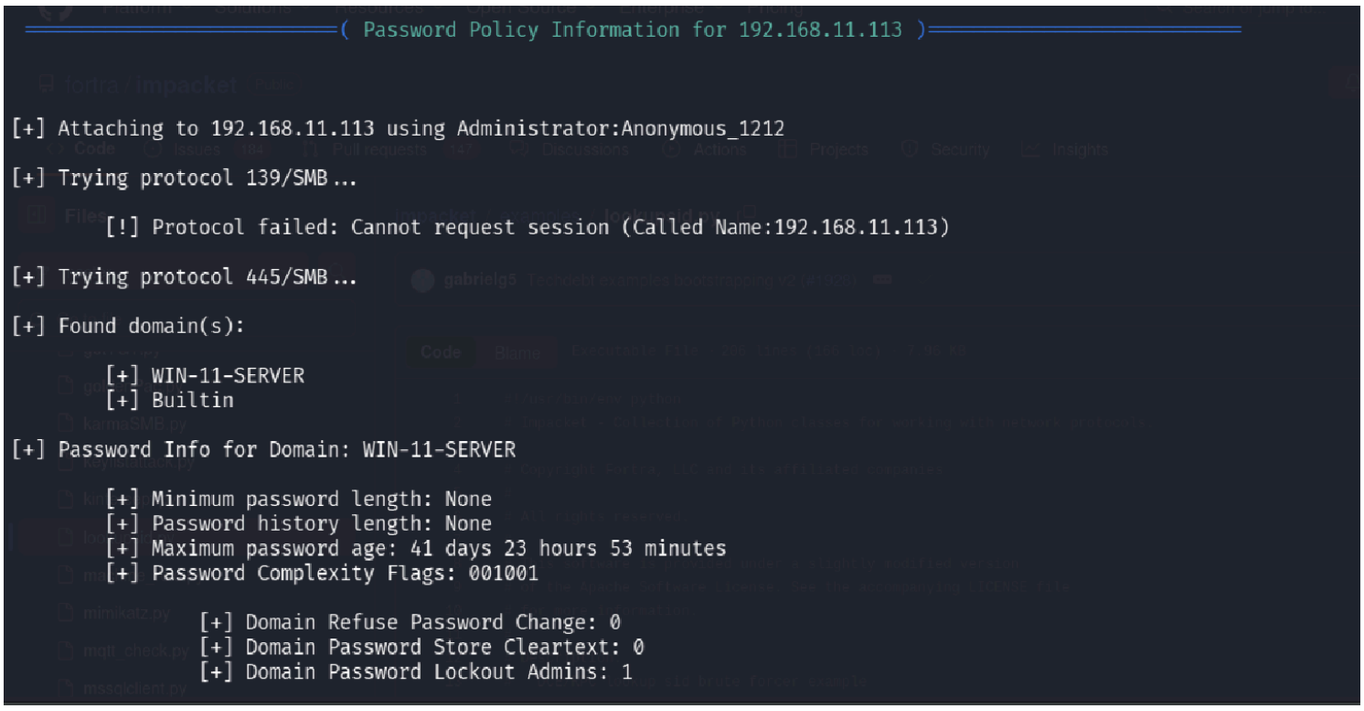
Workgroup, Nbtstat Information, Sessions, SID Information, and OS Information

enum4linux 192.168.11.113



enum4linux -a -u Administrator -p Anonymous_1212 192.168.11.113





Finally, we have the Share Enumeration, which had the guest share that we enumerated earlier. Then we see that it attempted to enumerate inside the print share and IPC but faced restrictions. Then we have the Password Policy Information regarding the users on the system. It indicates whether the password was changed recently or if it has never been changed. It also tells us the complexity and other stuff regarding users and the operating system of the target system.

Conclusion 🤠

In this article, we discuss the various scripts and tools that can enumerate with the SMB/MSRPC services on a target system. Enumeration is the key step in order to compromise and in order to defend your system and network. Be sure to safeguard your SMB service.