

Homework #3 Vulnerability Scanning

Name: Gilbert Garczynski

UID: 115308718

Honor Pledge: I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination.

1. When I run `nmap supersecure.store` the following is outputted:

```
Starting Nmap 7.91 ( https://nmap.org ) at 2021-02-16 11:55 EST
Nmap scan report for supersecure.store (18.191.224.93)
Host is up (0.017s latency).
rDNS record for 18.191.224.93: ec2-18-191-224-93.us-east-2.compute.amazonaws.com
Not shown: 998 filtered ports
PORT      STATE SERVICE
22/tcp    open  ssh
80/tcp    open  http

Nmap done: 1 IP address (1 host up) scanned in 4.60 seconds
```

This information includes the DNS record for the site, the amount of ports that it has filtered, and the ports that are open and which service they yield. Ports 22 and 80 are open and use ssh and http respectively. They all use TCP to transfer data.

2. To determine the OS that the server is running, I ran
`sudo nmap -A supersecure.store`

```

Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: bridge
Running: Oracle Virtualbox
OS CPE: cpe:/o:oracle:virtualbox
OS details: Oracle Virtualbox
Network Distance: 2 hops
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

TRACEROUTE (using port 80/tcp)
HOP RTT ADDRESS
1 1.65 ms 10.0.2.2
2 1.72 ms ec2-18-191-224-93.us-east-2.compute.amazonaws.com (18.191.224.93)

OS and Service detection performed. Please report any incorrect results at
https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 13.59 seconds

```

From the screen capture, we can tell that the server is running a Linux OS.

3. To find all of the TCP ports, I ran
`nmap -p0- supersecure.store`

```

Nmap scan report for supersecure.store (18.191.224.93)
Host is up (0.076s latency).
rDNS record for 18.191.224.93: ec2-18-191-224-93.us-east-2.compute.amazonaws.com
Not shown: 65532 filtered ports
PORT      STATE SERVICE
22/tcp    open  ssh
80/tcp    open  http
1337/tcp   open  waste
56788/tcp  open  unknown

Nmap done: 1 IP address (1 host up) scanned in 1120.28 seconds

```

This shows that there are 2 other open TCP ports, 1337 and 56788. 1337 is the port that the login page is on. However, we cannot tell from this command the services of the ports.

4. To find the services that are being run on the ports 1337 and 56788, I ran:
`nmap -p0- -sV supersecure.store`

```

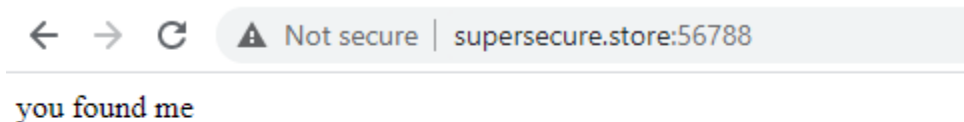
Starting Nmap 7.91 ( https://nmap.org ) at 2021-02-17 18:39 EST
Stats: 0:02:12 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 14.14% done; ETC: 18:55 (0:13:28 remaining)
Stats: 0:06:07 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 37.35% done; ETC: 18:56 (0:10:16 remaining)
Stats: 0:08:26 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 51.29% done; ETC: 18:56 (0:08:01 remaining)
Stats: 0:09:48 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 59.36% done; ETC: 18:56 (0:06:43 remaining)
Stats: 0:11:53 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 71.31% done; ETC: 18:56 (0:04:47 remaining)
Stats: 0:15:29 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan
SYN Stealth Scan Timing: About 92.87% done; ETC: 18:56 (0:01:11 remaining)
Nmap scan report for supersecure.store (18.191.224.93)
Host is up (0.025s latency).
rDNS record for 18.191.224.93: ec2-18-191-224-93.us-east-2.compute.amazonaws.com
Not shown: 65532 filtered ports
PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.1 (Ubuntu Linux; protocol 2.0)
80/tcp    open  http     nginx 1.18.0 (Ubuntu)
1337/tcp   open  http     nginx 1.18.0 (Ubuntu)
56788/tcp  open  http     nginx 1.18.0 (Ubuntu)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 1009.13 seconds

```

This shows that the ports 1337 and 56778 are both http ports.

On the 1337 port there is the login page (<http://supersecure.store:1337/>) , which I knew from last week's assignment. The 56788 port (<http://supersecure.store:56788/>) leads to a page that says



← → ↻ ⚠ Not secure | supersecure.store:56788

you found me

- There are new browser-viewable (http) services running. To determine what is on these, I ran

```

gobuster dir -u supersecure.store -w
/usr/share/wordlists/dirb/common.txt -U test -p test

```

```

$ gobuster dir -u supersecure.store -w /usr/share/wordlists/dirb/common.txt -U test -P test

Gobuster v3.0.1
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@_FireFart_)

[+] Url:          http://supersecure.store
[+] Threads:      10
[+] Wordlist:      /usr/share/wordlists/dirb/common.txt
[+] Status codes: 200,204,301,302,307,401,403
[+] User Agent:    gobuster/3.0.1
[+] Auth User:     test
[+] Timeout:      10s

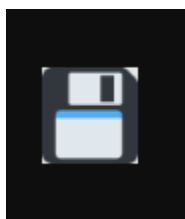
2021/02/17 17:01:17 Starting gobuster

/favicon.ico (Status: 200)
/index.html (Status: 200)
/robots.txt (Status: 200)

2021/02/17 17:01:41 Finished

```

From this, we discover that there is a path <http://supersecure.store/favicon.ico>, which is an image file. Nothing too interesting.



Now i need to run gobuster on the ports 1337 and 56788.

Running

```

gobuster dir -u http://supersecure.store:1337 -w
/usr/share/wordlists/dirb/common.txt -U test -p test

```

Gives us a path to /index.html

```

└─$ gobuster dir -u http://supersecure.store:1337 -w /usr/share/wordlists/dirb/common.txt

Gobuster v3.0.1
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@_FireFart_)

[+] Url:          http://supersecure.store:1337
[+] Threads:      10
[+] Wordlist:      /usr/share/wordlists/dirb/common.txt
[+] Status codes: 200,204,301,302,307,401,403
[+] User Agent:    gobuster/3.0.1
[+] Timeout:      10s

2021/02/18 10:50:53 Starting gobuster

/index.html (Status: 200)

2021/02/18 10:51:14 Finished

```

However, the URL <http://supersecure.store:1337/index.html> yields the same thing as <http://supersecure.store:1337>, which is the login page. Again, nothing too interesting.

Running

```

gobuster dir -u http://supersecure.store:56788 -w /usr/share/wordlists/dirb/common.txt -U test -p test

```

Shows us that there is a directory named /piranha

```

└─$ gobuster dir -u http://supersecure.store:56788 -w /usr/share/wordlists/dirb/common.txt

Gobuster v3.0.1
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@_FireFart_)

[+] Url:          http://supersecure.store:56788
[+] Threads:      10
[+] Wordlist:      /usr/share/wordlists/dirb/common.txt
[+] Status codes: 200,204,301,302,307,401,403
[+] User Agent:    gobuster/3.0.1
[+] Timeout:      10s

2021/02/18 10:45:47 Starting gobuster

/index.html (Status: 200)
/piranha (Status: 301)

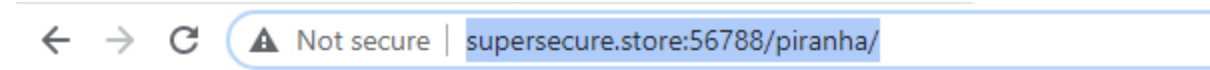
2021/02/18 10:46:10 Finished

```

The /piranha directory is curious, so I added it to the end of the URL

<http://supersecure.store:56788/piranha/>

This tracks to



You found our secret page!

Here's a [custom wordlist](#) :)

Hint: In a terminal you can run

```
wget supersecure.store:56788/piranha/wordlist.txt
```

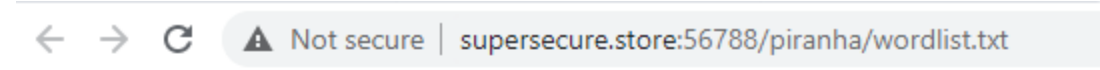
or

```
curl supersecure.store:56788/piranha/wordlist.txt > wordlist.txt
```

What other secrets can you find?

-

The wordlist URL (<http://supersecure.store:56788/piranha/wordlist.txt>) takes you to a page where there is a plethora of text, a sample provided below



```
cZRxUzMGmJTHnwoCTOLAbYFnjyIouQhrAJyuvBVibPufpShErcxrR
dJwrhUEvbpsuYvUKGXQuEaxarmViTLhacBRuVdEkjexLHcipLdghm
AzLATTsuRNmCNkTrWhBLomKiGvoHdmPPwFBkaDmuOaKiiznLWuJUr
jDhstbjwrjricvoQDoJEUKZYjKlQAsMYMmPogXGAoTrpZQERNeTCw
mQdFdqrkQeGkfflCZWbnTjiMntCyMXNlpGXdvArMqlaoNCeeTtVxo
STkLAzbSqElsXywyXDFfUTCrxXNVW0zCkKcZpQGcrDVgXizexQo
rBzxQmGekiWJzwOawVpJPtmWyGCBwshJtZataZdnxuqDfQMLhTOqh
IaRveWfWDRmBphJzfxXIFlAlbGzoXROzrjImbxuQsHdgBxFxmQbpL
ttbOeSwdSEVvTCiBltbMkHReFHJEgQAWtyLDxtjsjxRdJkKooCurL
TuCaIbpVOMKZxtROKcvjNPcQolXFfMklWVPseexRCZyetqvXUdCaL
YBvUAfVhLBpwUZDennUFETejVfFhEshiMhuvebuYbADBkrCXxBYbV
RRoYqPXaIzuMyourUYTMzcYcZWQcakYmOdzkpaFwaqyNxPwOmVCM
mbKSaBVsqLlKULPnjQwsGwzuPaVTgqladucrwIlWxYRyCelqJYXbR
gtXuaDxKmczRJkxleMbaeEBbnCFsLsFaLAoCmVcLPzCRhgHpukHbc
WgqJLGiUYMWRqsCEfqOPPzJUHmrfwQEiTESgAcufHwjZvJYLwOSBB
oqrpzvgyORHxrxQHgvYqLyXTewyBwcDkDQXUOzNVyUfZgemVfpok
zyzHttTLzvGSLmhBuSuLjePNyuPsMNAARnfKVLQgbwozrIGdeYumf
```

6. Using the new wordlist, run a directory brute force against the path found in #5

The path found in #5 was <http://supersecure.store:56788/piranha/>

Running a gobuster brute force on this, using the word list provided at the above URL,
gobuster dir -u <http://supersecure.store:56788/piranha> -w wordlist.txt

```
└─$ gobuster dir -u http://supersecure.store:56788/piranha -w wordlist.txt

Gobuster v3.0.1
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@_FireFart_)

[+] Url:             http://supersecure.store:56788/piranha
[+] Threads:         10
[+] Wordlist:         wordlist.txt
[+] Status codes:    200,204,301,302,307,401,403
[+] User Agent:      gobuster/3.0.1
[+] Timeout:         10s

2021/02/18 10:59:15 Starting gobuster

/LucDhaXOJsgKiOsvspSUiMeeIHfDjAPSwrZUSsUDQoBFKMypmgEph (Status: 301)

2021/02/18 10:59:16 Finished
```

This shows that there is another directory /LucD....

Appending this to my the URL found in #5 shows

<http://supersecure.store:56788/piranha/LucDhaXOJsgKiOsvspSUiMeeIHfDjAPSwrZUSsUDQoBFKMypmgEph/>

This takes me to another page, as detailed below.

Congrats on finishing HW3!

Have a cat picture :)

