BUUCTF MISC刷题笔记(四)

原创

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7 篇文章 1 订阅

订阅专栏

刷题

8 篇文章 0 订阅

订阅专栏

BUUOJ

- Misc
  - [RCTF2019]disk
  - [MRCTF2020]小O的考研复试
  - [HDCTF2019]你能发现什么蛛丝马迹吗
  - [BSidesSF2019]table-tennis
  - [CFI-CTF 2018]webLogon capture
  - key不在这里
  - 很好的色彩呃？
  - [INSHack2018]Self Congratulation
  - [GUET-CTF2019]520的暗示
  - greatescape
  - [ACTF新生赛2020]frequency

Misc

[RCTF2019]disk

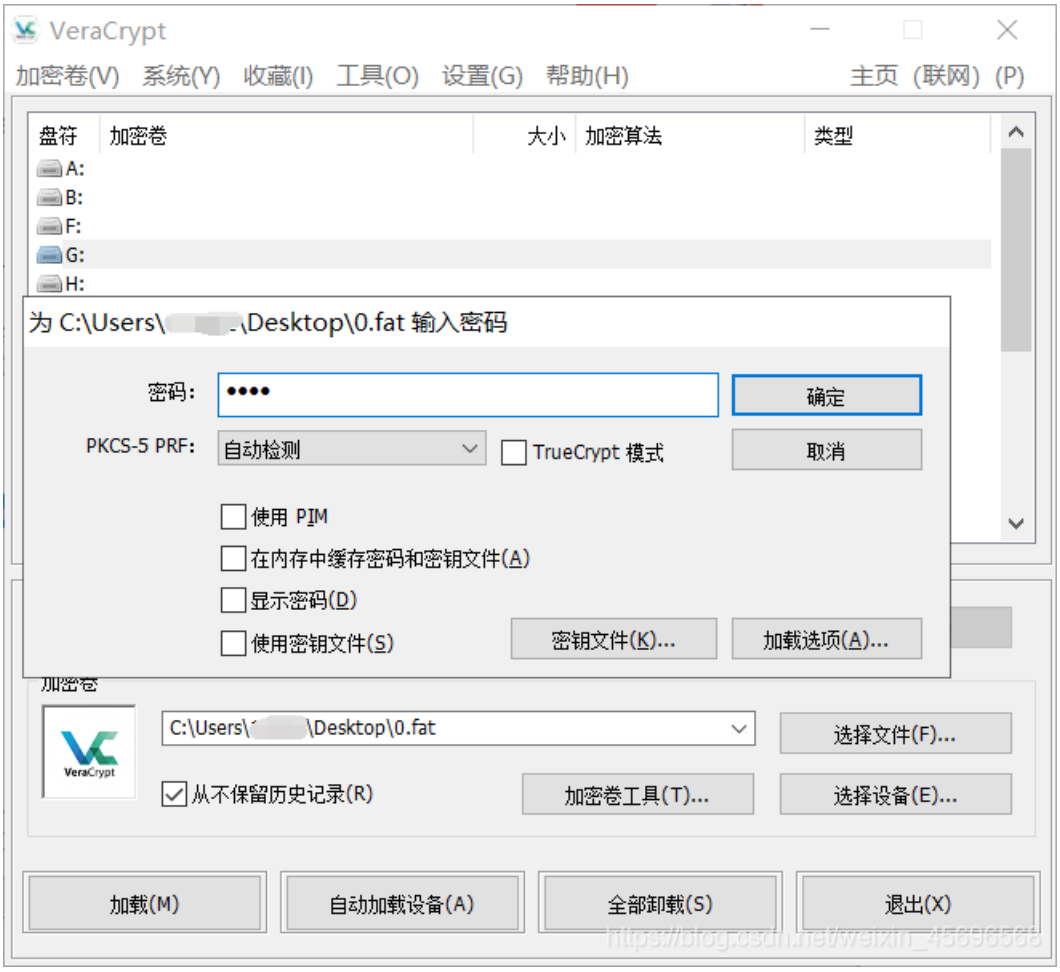
这个题本来是有提示的，buu这里没给

> An otaku used VeraCrypt to encrypt his favorites.
> Password: rctf
> Flag format: rctf{a-zA-Z0-9_}

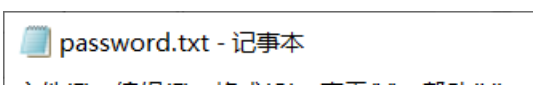
下载得到`encrypt.vmdk`，winhex瞅一下，得到半段flag：`rctf{unseCure_quick_form4t_vo1ume`，出题人还是很贴心的，怕我们看不到，重复了这么多次

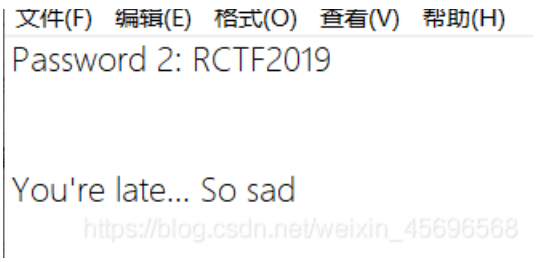
```
6D  ick_form4t_volum
71  erctf{unseCure_q
75  uick_form4t_volu
5F  merctf{unseCure_
31  quick_form4t_vol
65  umerctf{unseCure
6F  _quick_form4t_vo
72  lumerctf{unseCur
76  e_quick_form4t_v
75  olumerctf{unseCu
5F  re_quick_form4t_
```

用7z解压这个vmdk文件，得到0.fat，然后用`VeraCrypt`挂载`0.fat`

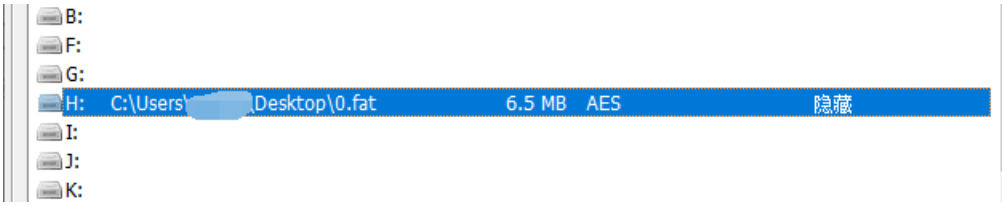


挂载完后打开对应的盘，有两个文件，txt和`70056639_useless_file_for_ctf_just_ignore_it.jpg`

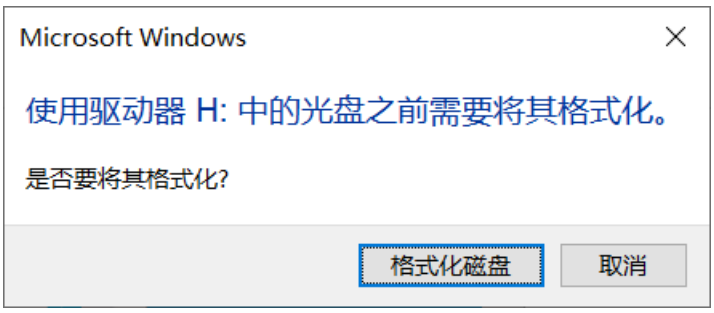




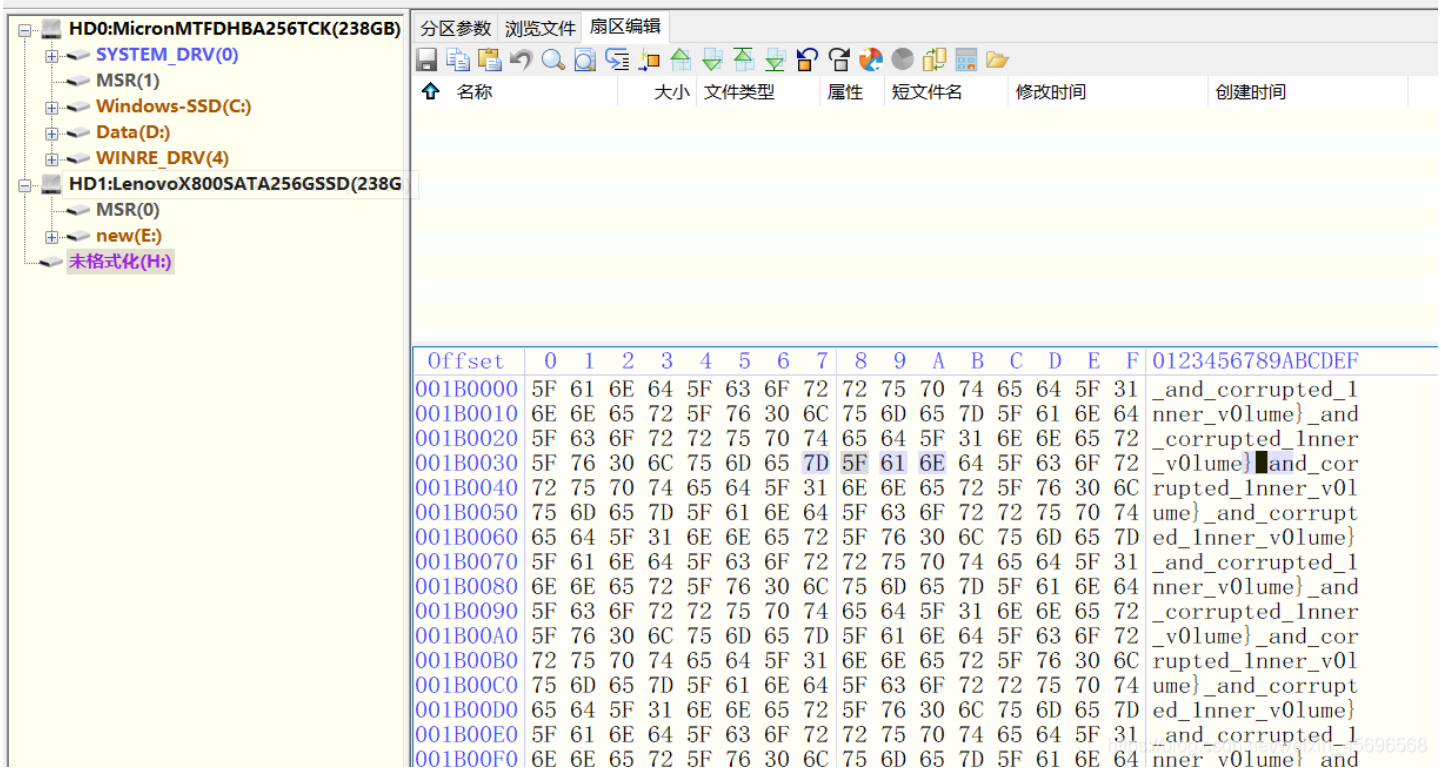
注意到jpg的图片名，和txt中的提示，回过头使用密码`RCTF2019`重新挂载，注意到这是一个隐藏分区



这个隐藏分区无法直接访问，所以使用`DiskGenius`



找到另一半flag，当然也可以使用winhex查看，`工具`→`打开磁盘`→`选择磁盘`



最终flag：`rctf{unseCure_quick_form4t_vo1ume_and_corrupted_1nner_v0lume}`

[MRCTF2020]小O的考研复试

简单的数学题

今天得题目很简单

$$\underbrace{kk\ldots k}_{n个k}$$

$$\underbrace{22\ldots2}_{19260817个2}$$

而上述第二个式子对(1e9+7)取模的值是我们要上交的flag.

这题目很简单吧。大家快A掉吧。

flag直接提交数字即可。

做数学题就行，跑出来结果是`577302567`

[HDCTF2019]你能发现什么蛛丝马迹吗

拿到一个镜像文件，分析一波

`python vol.py -f memory.img imageinfo`

```
INFO    : volatility.debug    : Determining profile based on KDBG search...
          Suggested Profile(s) : Win2003SP0x86, Win2003SP1x86, Win2003SP2x86 (Instantiated with Win2003SP2x86)
                     AS Layer1 : IA32PagedMemoryPae (Kernel AS)
                     AS Layer2 : FileAddressSpace (/home/volcano/桌面/volatility/memory.img)
                      PAE type : PAE
                           DTB : 0xe02000L
                          KDBG : 0x8088e3e0L
          Number of Processors : 1
     Image Type (Service Pack) : 1
                KPCR for CPU 0 : 0xffdff000L
             KUSER_SHARED_DATA : 0xffdf0000L
           Image date and time : 2019-04-25 08:43:06 UTC+0000
     Image local date and time : 2019-04-25 16:43:06 +0800
```

看一下进程：`python vol.py -f memory.img --profile=Win2003SP1x86 pslist`

```
Offset(V)  Name                    PID   PPID   Thds     Hnds   Sess  Wow64 Start                          Exit
```

```
---------- -------------------- ------ ------ ------ -------- ------ ------ ------------------------------ -----
-------------------------
0x81f8f020 System                    4      0     56      319 ------      0
0xfe2f8448 smss.exe                380      4      3       18 ------      0 2018-12-07 16:20:54 UTC+0000
0xfe2caa60 csrss.exe               516    380     12      509      0      0 2018-12-07 16:21:00 UTC+0000
0xfe304298 winlogon.exe            580    380     25      504      0      0 2018-12-07 16:21:04 UTC+0000
0xfe2fdd88 services.exe            648    580     16      303      0      0 2018-12-07 16:21:05 UTC+0000
0xfe2e5530 lsass.exe               660    580     38      458      0      0 2018-12-07 16:21:05 UTC+0000
0xfe2f9290 vmacthlp.exe            880    648      1       26      0      0 2018-12-07 16:21:06 UTC+0000
0xfe34d658 svchost.exe             932    648      6       93      0      0 2018-12-07 16:21:07 UTC+0000
0xfde05020 svchost.exe             984    648     10      268      0      0 2018-12-07 16:21:07 UTC+0000
0xfddf4c08 svchost.exe            1040    648     10      138      0      0 2018-12-07 16:21:08 UTC+0000
0xfddeb020 svchost.exe            1072    648     15      168      0      0 2018-12-07 16:21:08 UTC+0000
0xfdde9a70 svchost.exe            1096    648     79     1271      0      0 2018-12-07 16:21:08 UTC+0000
0x81e5a7d0 spoolsv.exe            1668    648     14      151      0      0 2018-12-07 16:21:26 UTC+0000
0xfe7385e8 msdtc.exe              1700    648     16      166      0      0 2018-12-07 16:21:26 UTC+0000
0xfddb7b18 svchost.exe            1800    648      2       54      0      0 2018-12-07 16:21:27 UTC+0000
0xfddb1020 svchost.exe            1848    648      2       37      0      0 2018-12-07 16:21:27 UTC+0000
0xfdda8020 VGAuthService.e        1920    648      2       65      0      0 2018-12-07 16:21:28 UTC+0000
0xfdc6eb18 vmtoolsd.exe            300    648      8      244      0      0 2018-12-07 16:21:36 UTC+0000
0xfe3d5600 svchost.exe             484    648     16      135      0      0 2018-12-07 16:21:40 UTC+0000
0xfe3d4cb0 dllhost.exe             736    648     22      239      0      0 2018-12-07 16:21:41 UTC+0000
0xfe30ed88 dllhost.exe            1052    648     22      236      0      0 2018-12-07 16:21:42 UTC+0000
0xfdc40638 wmiprvse.exe           1368    932      9      215      0      0 2018-12-07 16:21:44 UTC+0000
0xfdc1bb18 explorer.exe           1992   1664     16      386      0      0 2018-12-07 16:21:50 UTC+0000
0xfdc1ad88 vssvc.exe              2040    648      7      112      0      0 2018-12-07 16:21:51 UTC+0000
0xfdbd3418 vmtoolsd.exe           1596   1992      6      166      0      0 2018-12-07 16:22:01 UTC+0000
0xfdbd2110 ctfmon.exe             1840   1992      1       69      0      0 2018-12-07 16:22:01 UTC+0000
0xfdbbc330 conime.exe             1792   1636      1       32      0      0 2018-12-07 16:22:16 UTC+0000
0xfdba5320 wmiprvse.exe           1128    932      8      165      0      0 2018-12-07 16:22:24 UTC+0000
0xfdb00030 vmauxlt.exe            2224   1096      5      116      0      0 2018-12-07 16:22:44 UTC+0000
```

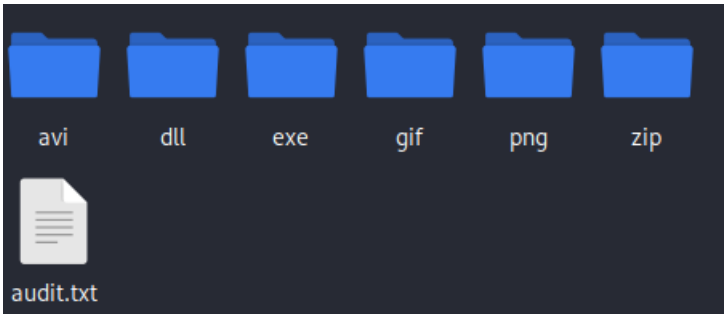
```
0xfdb90930 wuauclt.exe           2224   1096      5      116      0      0 2018-12-07 16:22:44 UTC+0000

0xfdb6a638 DumpIt.exe            3660   1992      1       26      0      0 2019-04-25 08:43:04 UTC+0000
```

发现最后这个`DumpIt.exe`有点可疑，把它dump下来

`python vol.py -f memory.img --profile=Win2003SP1x86 memdump -p 1992 --dump-dir=./`

再foremost分离一下

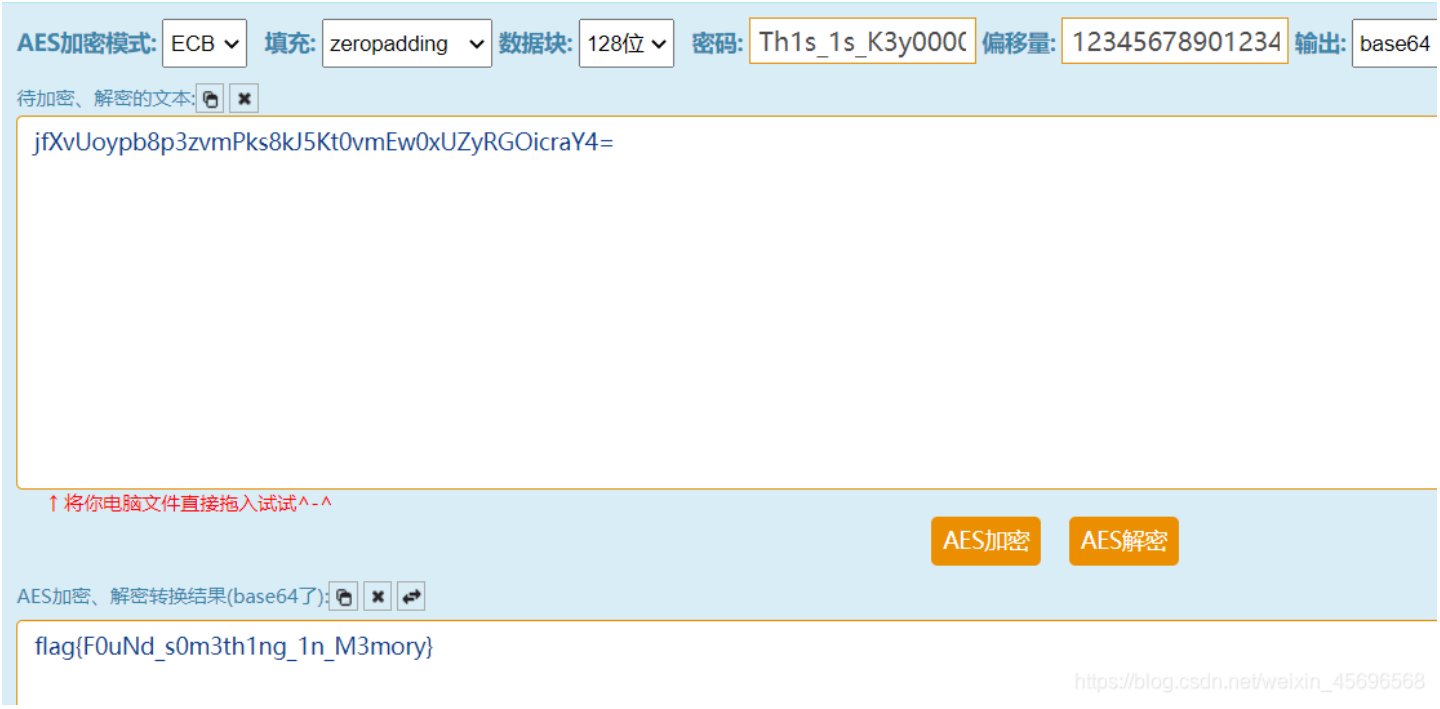


其中png里面有两张有用的图

> key: Th1s_1s_K3y00000
> iv: 1234567890123456

扫码得到：`jfXvUoypb8p3zvmPks8kJ5Kt0vmEw0xUZyRGOicraY4=`

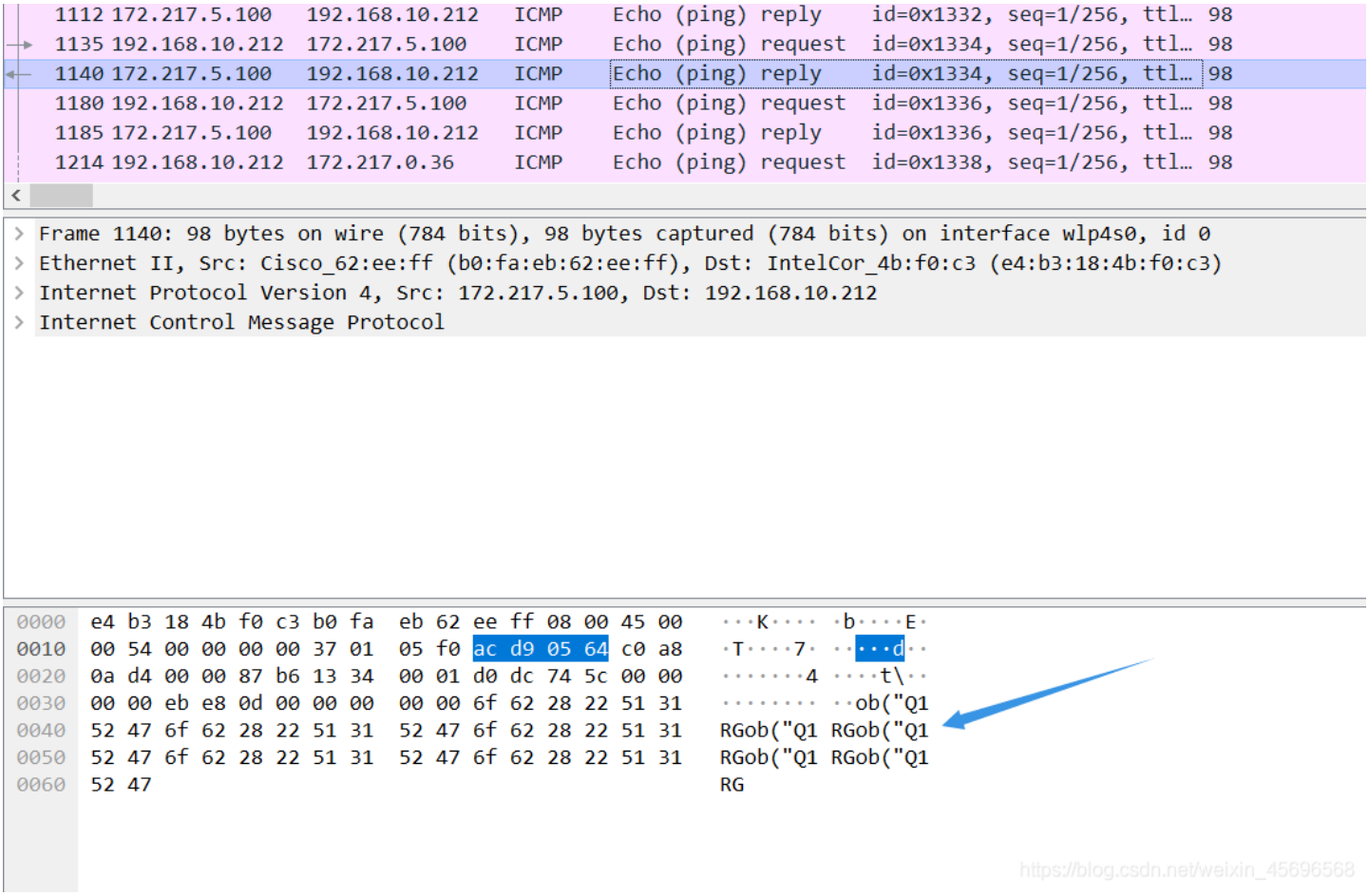
这里给出了偏移量iv，应该是AES加密



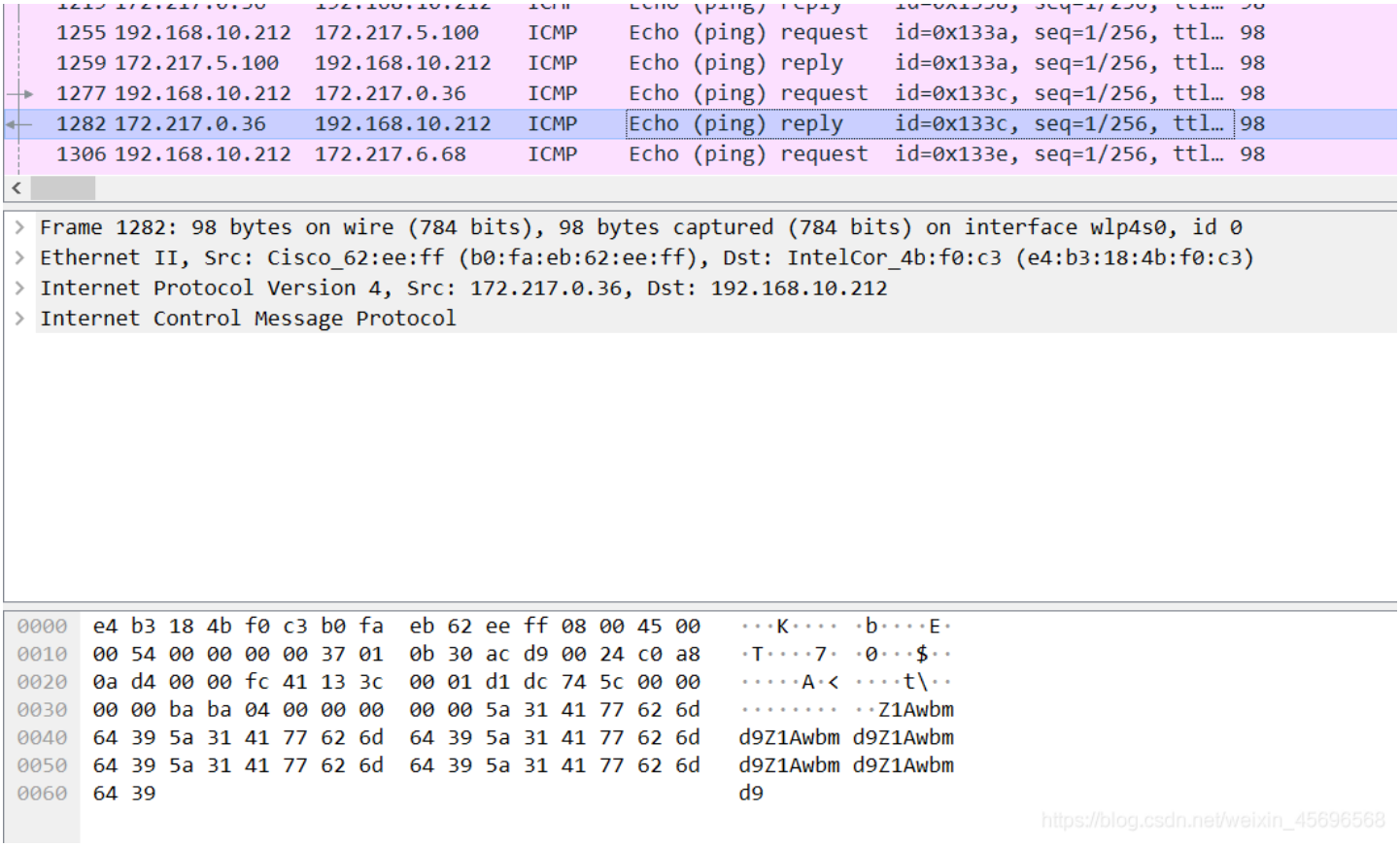
[BSidesSF2019]table-tennis

给了一个流量包，wireshark打开

从这个位置开始，打印了一串字符串



到这里结束



字符串拼接起来得到`Q1RGe0p1c3RBUzBuZ0FiMHV0UDFuZ1Awbmd9`

base64解码得到`CTF{JustAS0ngAb0utP1ngP0ng}`

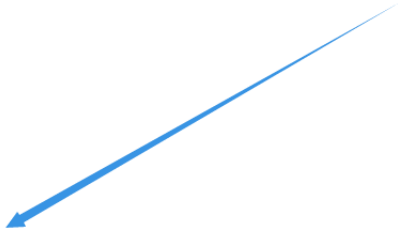
[CFI-CTF 2018]webLogon capture

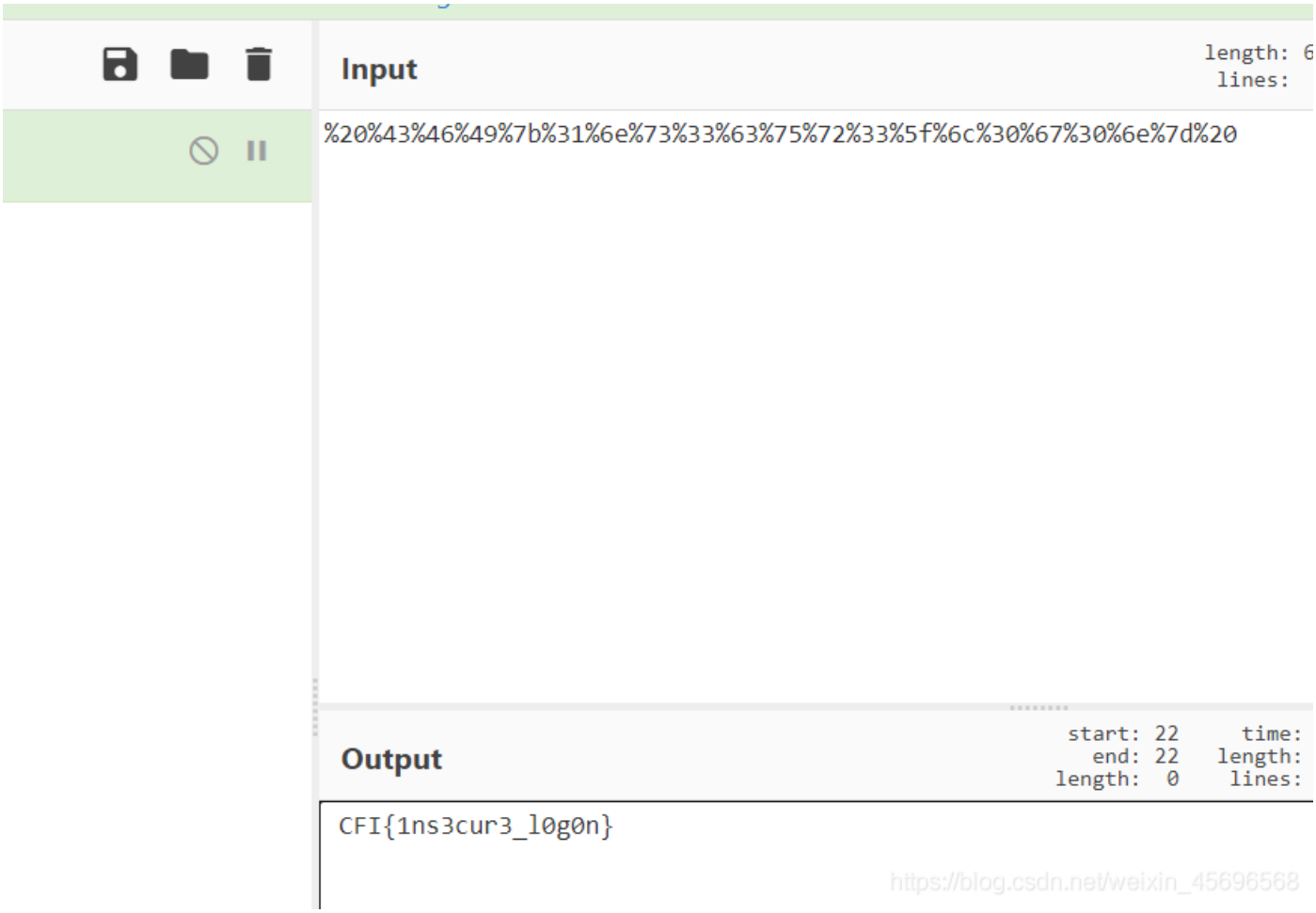
简简单单

No.	Source	Destination	Protocol	Info	Length
1	10.10.40.241	10.10.20.4	HTTP	POST /auth/login/ HTTP/1.1 (application/json)	902
2	10.10.20.4	10.10.40.241	HTTP	HTTP/1.1 401 UNAUTHORIZED (application/json)	634
3	10.10.40.241	10.10.20.4	TCP	47428 → 80 [ACK] Seq=837 Ack=569 Win=246 Len=0…	66
4	10.10.40.241	10.10.20.4	HTTP	POST /auth/login/ HTTP/1.1 (application/json)	902
5	10.10.20.4	10.10.40.241	HTTP	HTTP/1.1 401 UNAUTHORIZED (application/json)	634
6	10.10.40.241	10.10.20.4	TCP	47428 → 80 [ACK] Seq=1673 Ack=1137 Win=255 Len…	66
7	10.10.40.241	10.10.20.4	HTTP	POST /auth/login/ HTTP/1.1 (application/json)	902
8	10.10.20.4	10.10.40.241	HTTP	HTTP/1.1 401 UNAUTHORIZED (application/json)	634
9	10.10.40.241	10.10.20.4	TCP	47428 → 80 [ACK] Seq=2509 Ack=1705 Win=264 Len…	66

```
> Frame 1: 902 bytes on wire (7216 bits), 902 bytes captured (7216 bits) on interface wlp5s0, id 0
> Ethernet II, Src: IntelCor_6f:68:73 (ac:ed:5c:6f:68:73), Dst: Routerbo_55:a1:de (6c:3b:6b:55:a1:de)
> Internet Protocol Version 4, Src: 10.10.40.241, Dst: 10.10.20.4
> Transmission Control Protocol, Src Port: 47428, Dst Port: 80, Seq: 1, Ack: 1, Len: 836
> Hypertext Transfer Protocol
v JavaScript Object Notation: application/json
  v Object
    > Member Key: email
    v Member Key: password
        String value: %20%43%46%49%7b%31%6e%73%33%63%75%72%33%5f%6c%30%67%30%6e%7d%20
        Key: password
```

```
0290  34 50 67 2d 37 4f 78 5f  7a 79 31 52 34 2d 5f 78   4Pg-7Ox_ zy1R4-_x
02a0  45 59 49 63 4f 6f 36 74  45 6f 4b 30 7a 4b 6c 4e   EYIcOo6t EoK0zKlN
02b0  46 4c 47 76 56 63 6d 63  7a 5f 5a 45 4d 69 6e 37   FLGvVcmc z_ZEMin7
02c0  31 79 4c 30 30 69 72 53  58 4a 57 35 51 74 6f 39   1yL00irS XJW5Qto9
02d0  38 66 30 77 32 36 4b 45  32 4d 2e 44 6d 64 69 76   8f0w26KE 2M.Dmdiv
02e0  67 2e 46 75 77 43 65 42  70 57 31 74 31 48 74 5a   g.FuwCeB pW1t1HtZ
02f0  6f 5f 70 57 44 4b 39 2d  4f 6f 38 54 51 0d 0a 44   o_pWDK9- Oo8TQ··D
0300  4e 54 3a 20 31 0d 0a 43  6f 6e 6e 65 63 74 69 6f   NT: 1··C onnectio
0310  6e 3a 20 6b 65 65 70 2d  61 6c 69 76 65 0d 0a 0d   n: keep- alive···
0320  0a 7b 22 65 6d 61 69 6c  22 3a 22 74 65 73 74 40   ·{"email ":"test@
0330  65 78 61 6d 70 6c 65 22  2c 22 70 61 73 73 77 6f   example" ,"passwo
0340  72 64 22 3a 22 25 32 30  25 34 33 25 34 36 25 34   rd":"%20 %43%46%4
0350  39 25 37 62 25 33 31 25  36 65 25 37 33 25 33 33   9%7b%31% 6e%73%33
0360  25 36 33 25 37 35 25 37  32 25 33 33 25 35 66 25   %63%75%7 2%33%5f%
0370  36 63 25 33 30 25 36 37  25 33 30 25 36 65 25 37   6c%30%67 %30%6e%7
0380  64 25 32 30 22 7d                                  d%20"}
```





key不在这里

扫码得到网址

> https://cn.bing.com/search?q=key%E4%B8%8D%E5%9C%A8%E8%BF%99%E9%87%8C&m=10210897103375566531005253102975053545155505050521025256555254995410298561015151985150375568&qs=n&form=QBRE&sp=-1&sc=0-38&sk=&cvid=2CE15329C18147CBA4C1CA97C8E1BB8C

直接访问是得不到flag的，这里注意

到 `m=10210897103375566531005253102975053545155505050521025256555254995410298561015151985150375568`

这一串字符，可以分割为102、 108、 97... 写脚本转换

```
from urllib.parse import unquote

s="10210897103375566531005253102975053545155505050521025256555254995410298561015151985150375568"
x=len(s)//2
flag=""
for i in range(x):
    if len(s) != 0:
        if  int(s[:3])< 127:
            flag += chr(int(s[:3]))
            s = s[3:]
        else:
            flag += chr(int(s[:2]))
            s = s[2:]
print(unquote(flag, 'utf-8'))  #url解码一次
```

跑完出flag

很好的色彩呃？

下载得到一个gif

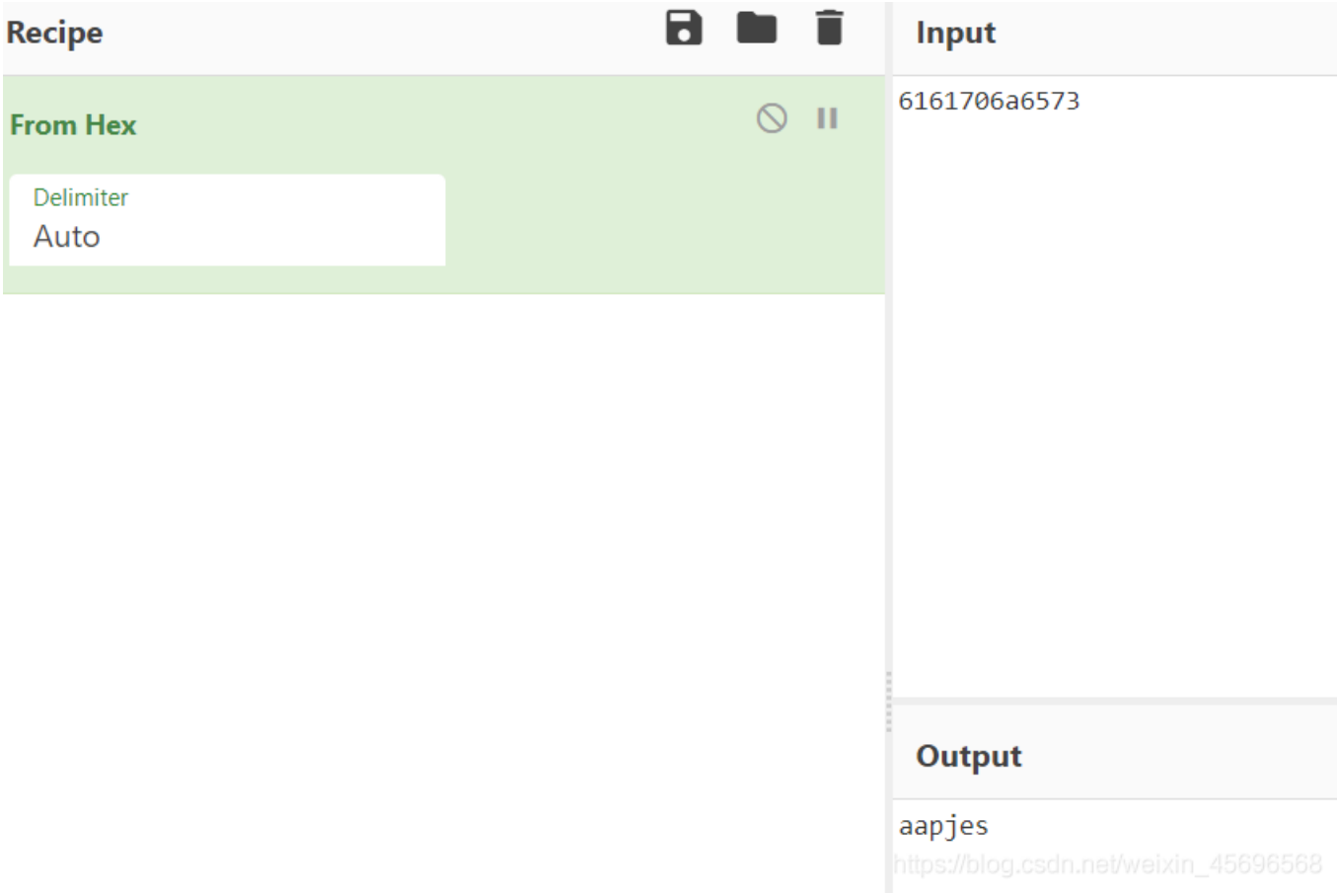
这六个竖杠，看起来颜色有细微的差别，用`ps`打开，使用取色器查看每部分的颜色

结果如下：

```
8b8b61
8b8b61
8b8b70
8b8b6a
8b8b65
8b8b73
```

发现只有最后两位不同，把它们连起来：`6161706a6573`

直接提交是错的，需要转成字符



`flag{aapjes}`

[INSHack2018]Self Congratulation

图片这个位置有点怪

放大看

把黑的换成1，白的换成0，这块数据不大，挺容易的

```
00110001001
10010001100
11001101000
01101010011
01100011011
10011100000
```

再转成字符，在线网站

`flag{12345678}`

[GUET-CTF2019]520的暗示

好家伙，dat文件，前几天刚在bugku做过，可以参考我这篇博客的`FileStoragedat`

解出来这样一张图

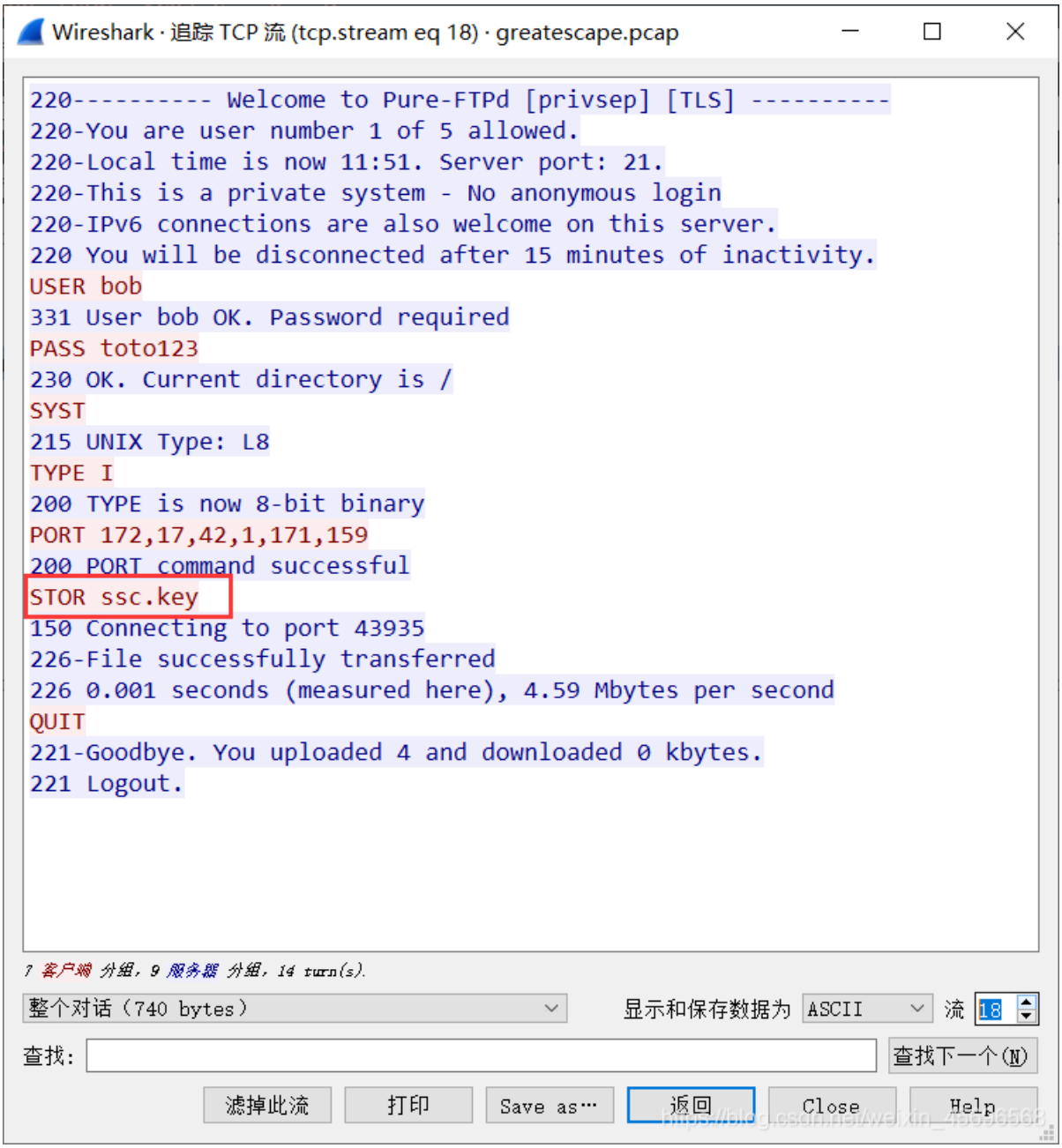
然后就是`根据LTE定位基站地址`，不过没找到合适的查询网站

`flag{桂林电子科技大学花江校区}`

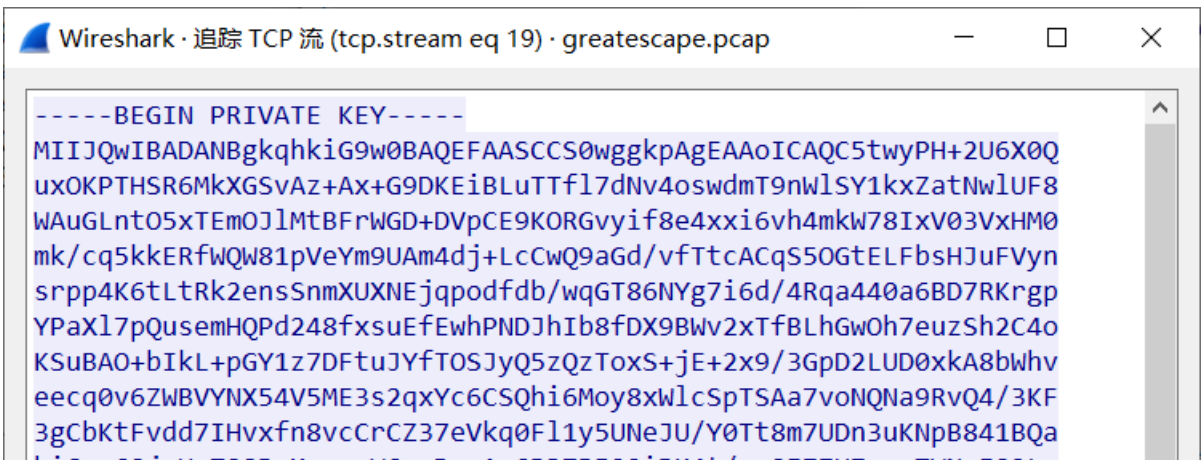
greatescape

得到一个流量包，用wireshark分析，追踪TCP流，挨个看

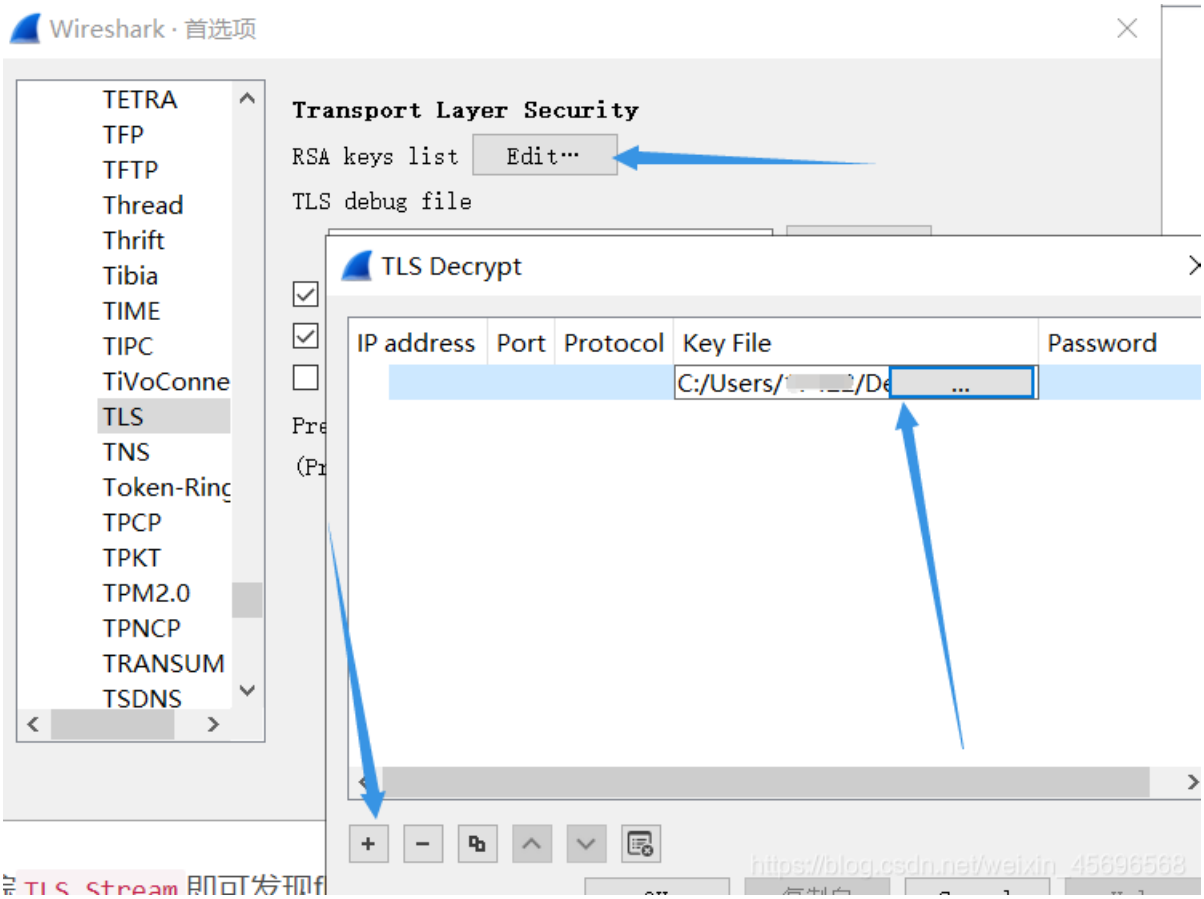
在流18这里看到一个`ssc.key`，而且这里是`TLS协议`



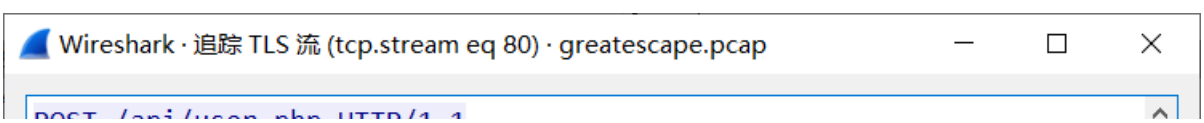
再往下看，在流19发现私钥，把它保存为`1.key`

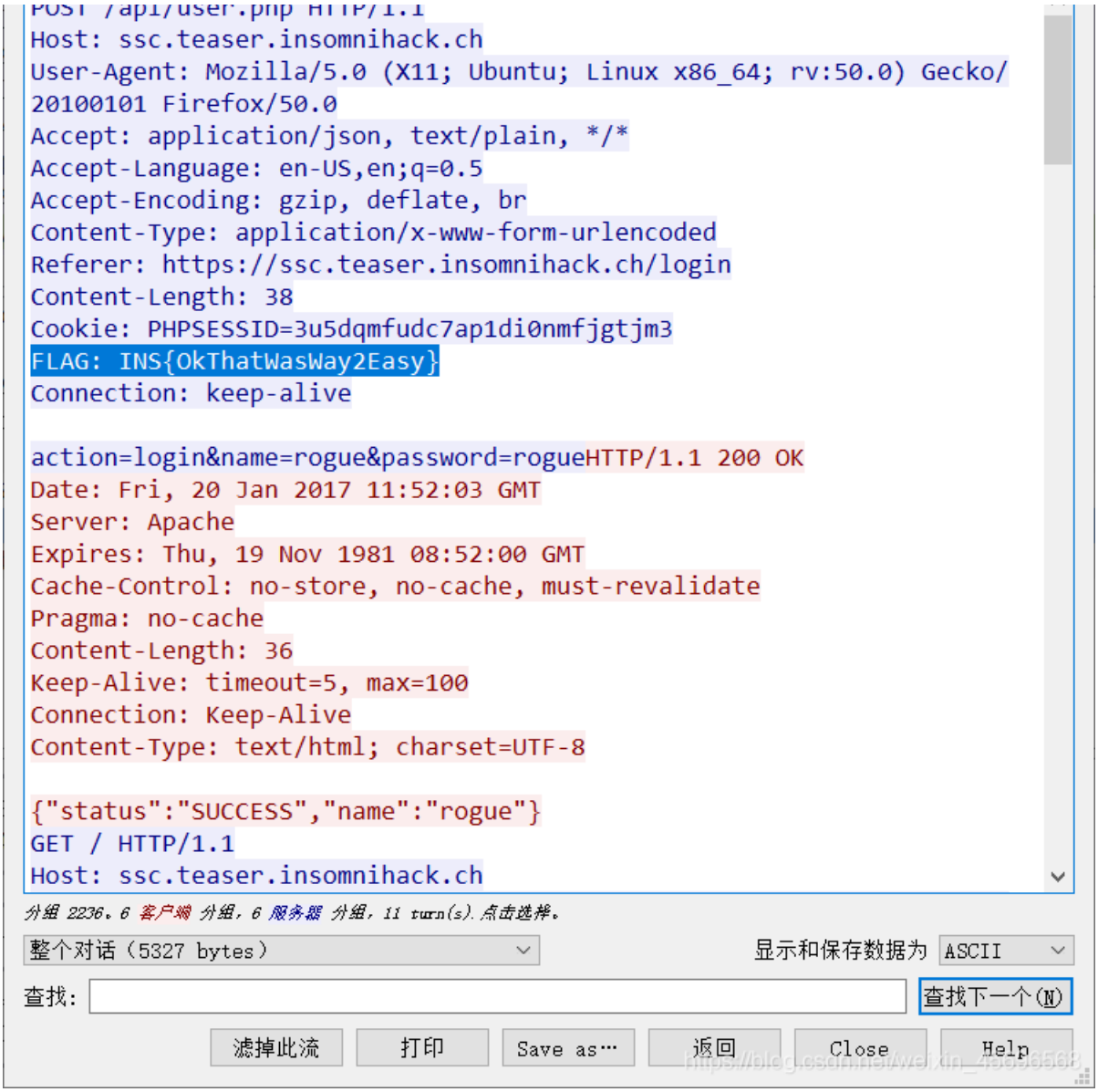


接下来 `编辑` -> `首选项` -> `protocols` -> `TLS`，再把1.key导入，就可以解密出内容了



再去流80追踪TLS流





[ACTF新生赛2020]frequency

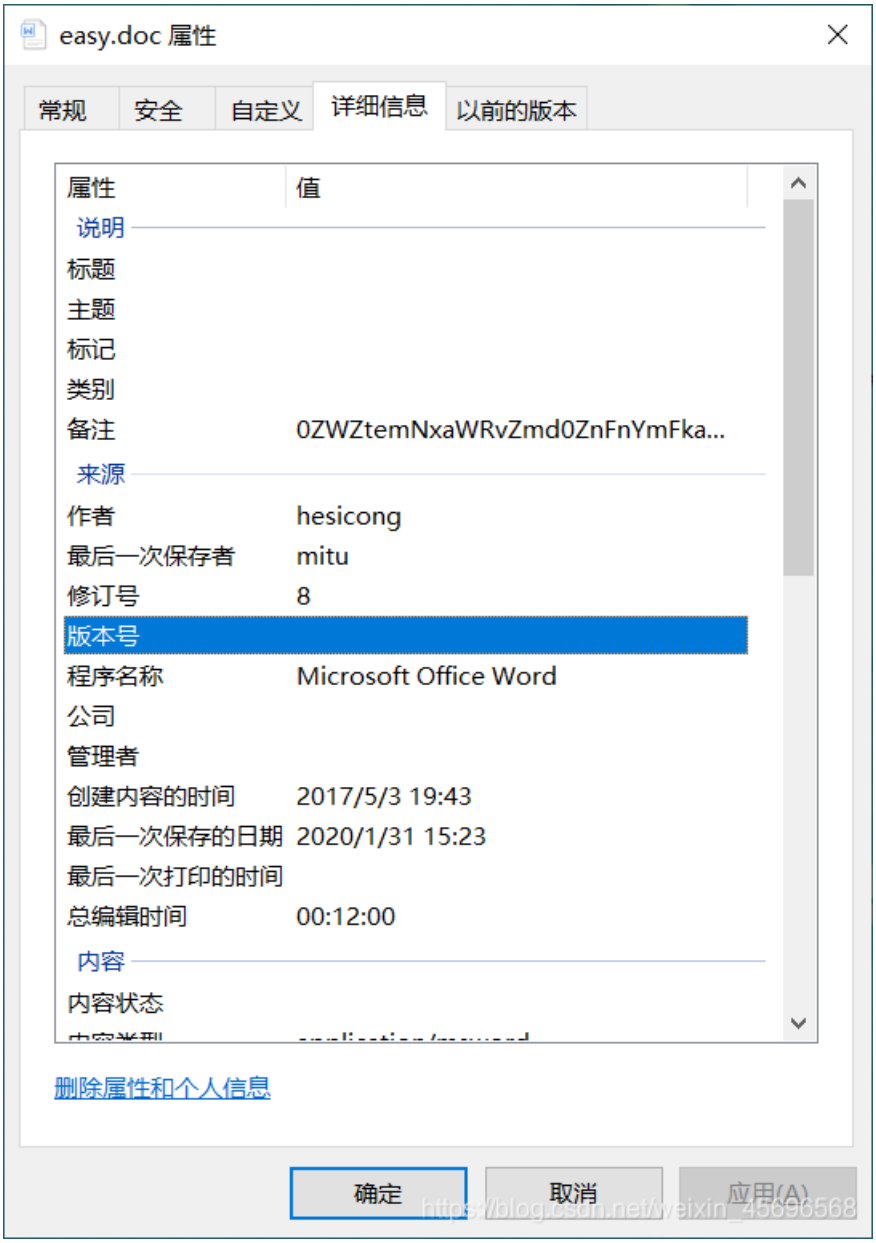
doc里面有很多字符

·你猜 **flag** 在哪？有两截哦。↵

a2draGxmY290bnRpdWZwZ2hodGN3dWprY2ttb3ducGNrbXdseWd0bHBtZmtneW
FhaWh1Y2RsYXRveXVjb2lnZ3JwbGt2a2Ftcmt0cXp4ZW1taXdrbGh1YWVrY2Vvb
HBvY2ZtdGFobWdmbWF2YWpuYmNwbWx0anRwdWZqY2FwY3RvanBqYmZm
Ympid2h1YWxnZ3lqbmFtY2JmeWFjamJheGtpeGxtbXFpa3NtcHRxeW9qZXJ0Zm
VrdGR4ZHh4YnRyeGNhbmd5bXNpbWh2dXdrdGV4c2dscnRwZ2FrdGJtZnVjZ3Zu
bXRqdWZvZWt5bXRsaW14ZGlqanB4eWl0YWJwbWt1Y2NubGtwb2V0Z2NkY3B
vc2tpenZ5eHJ0enhyYXh0bm9paHFjeGZvYWFhbHBhanlja2VrYnljZnZqb21sbGtha
md5bWdmZGNycGVxa2xmc2NtZWppY3BqaWtjcHBhY3h5ZXZma3ljcHBia2R6Y

这串字符的结尾没有`=`，不确定是什么

同时在详细信息里发现一串字符



> 0ZWZtemNxaWRvZmd0ZnFnYmFkaWNubWhvdGlvbm9iZnlubGdvenRkYXZ2aW14b2JvdGlra2Z4d2lyb3JwZmNjdXpob3BoZmRjaWVrY2p5b21lamtjZ2Zmam51bmhvcGFkdGZndG1sdA==

两段拼在一起，base64解码

```
import base64
f = open("1.txt","r")
txt=f.read().replace(".","")
f.close()
print(base64.b64decode(txt))
```

得到的结果保存在2.txt中，结合题目名，开始`词频统计`

```
f = open("2.txt","r")
txt=f.read().replace(" ","")
f.close()
d={}
for i in txt:
    d[i] = d.get(i,0)+1
ls=list(d.items())
ls.sort(key=lambda x:x[1],reverse =True)
for i in ls:
    print(i[0],end="")
```

结果：actfplokmijnuhbygvrdxeszwq}{

所以：`flag{plokmijnuhbygvrdxeszwq}`