

# BMZCTF-MISC (一) WriteUp

原创

[Crazy198410](#) 于 2020-11-15 23:21:56 发布 441 收藏

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本文链接: <https://blog.csdn.net/Crazy198410/article/details/109612549>

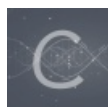
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[BMZCTF-MISC](#)

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# MISC

<http://www.bmzclub.cn/challenges>

解密

## 0x01 签到题

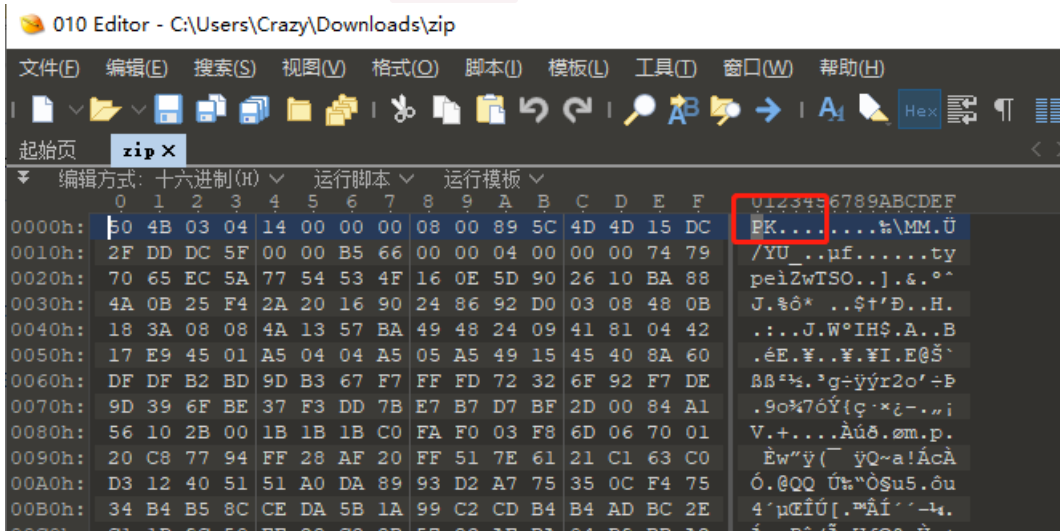
关注公众号：白帽子社区，回复关键字：BMZCTF 获取flag

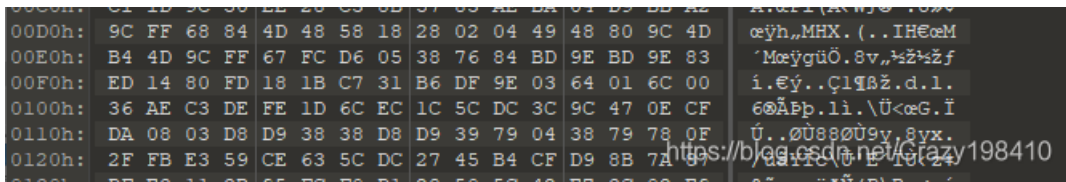


## 0x02 2018 HEBTUCTF 签到题

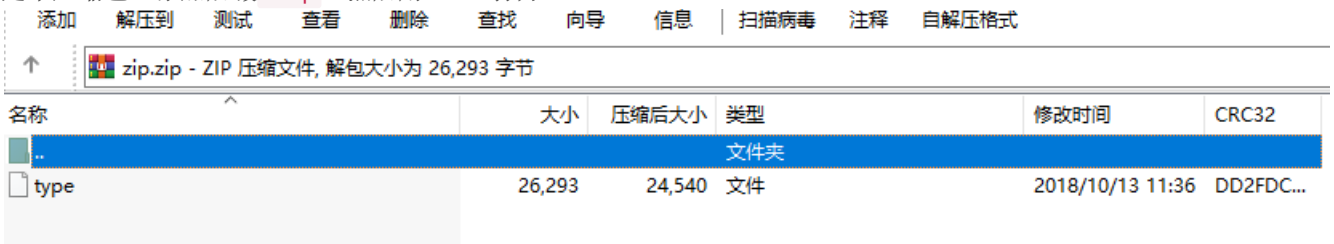


下载压缩包。是个名为zip的文件，没有后缀名。用 010editor 打开，看下文件头部：

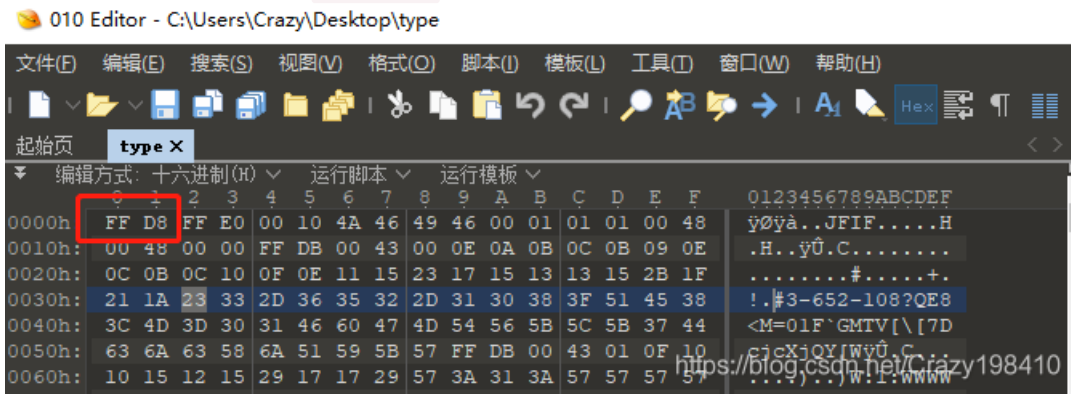




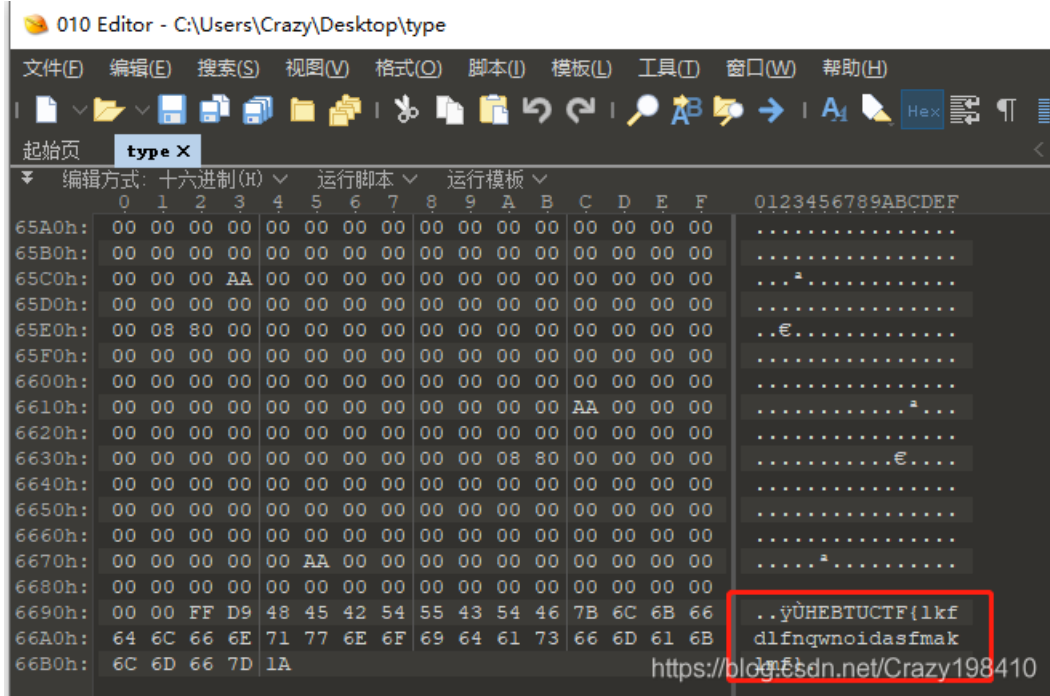
发现是个压缩包，添加后缀 `.zip`，然后用winrar打开。



发现又是一个无后缀文件，解压出来，再用 `010editor` 打开



疑似是个jpg文件，再看下文件尾部：



可以得到flag

### 0x03 2018 HEBTUCTF 你可能需要一个wireshark



# 2018 HEBIUCTIF 你可能需要 要一个wireshark

97

wireshark.zip

Flag

Submit

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下载附件，是个流量包文件，用wireshark打开：

The screenshot shows the Wireshark interface with a packet capture of a web request. The 'Follow' menu is open, highlighting 'TCP Stream'. The packet list shows a series of TCP and HTTP packets. The selected packet is a TCP packet with sequence number 54446 and destination port 80. The packet details show an HTTP POST request to /dvwa-1.9/vulnerabilities/.

追踪TCP流，发现是个DVWA的练习流量包。

```
GET /dvwa-1.9/vulnerabilities/brute/ HTTP/1.1
Host: 192.168.111.139
User-Agent: Mozilla/5.0 (Windows NT 10.0; WOW64; rv:52.0) Gecko/20100101 Firefox/52.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: zh-CN,zh;q=0.8,en-US;q=0.5,en;q=0.3
Accept-Encoding: gzip, deflate
Referer: http://192.168.111.139/dvwa-1.9/security.php
Cookie: security=low; PHPSESSID=khheaibs11e39a9hi5muut3170
Connection: keep-alive
Upgrade-Insecure-Requests: 1
```

<https://blog.csdn.net/Crazy198410>

逐个流查看，在第17个流发现上传了一个flag.txt文件。文件内容是一串加密内容。

Wireshark · 追踪 TCP 流 (tcp.stream eq 17) · youjun.pcapng

```
POST /dvwa-1.9/vulnerabilities/upload/ HTTP/1.1
Host: 192.168.111.139
User-Agent: Mozilla/5.0 (Windows NT 10.0; WOW64; rv:52.0) Gecko/20100101 Firefox/52.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: zh-CN,zh;q=0.8,en-US;q=0.5,en;q=0.3
Accept-Encoding: gzip, deflate
Referer: http://192.168.111.139/dvwa-1.9/vulnerabilities/upload/
Cookie: security=low; PHPSESSID=khheaibs11e39a9hi5muut3170
Connection: keep-alive
Upgrade-Insecure-Requests: 1
```

```
Upgrade-Insecure-Requests: 1
Content-Type: multipart/form-data; boundary=-----41184676334
Content-Length: 431

-----41184676334
Content-Disposition: form-data; name="MAX_FILE_SIZE"

100000
-----41184676334
Content-Disposition: form-data; name="uploaded"; filename="flag.txt"
Content-Type: text/plain

SEVCFVFDVEY1N0JmMWFnXzFzX3c3bl9kNG81N0Q=
-----41184676334
Content-Disposition: form-data; name="Upload"

Upload
-----41184676334--
```

<https://blog.csdn.net/Crazy198410>

观察密文，看到有大小写字母，数字和“=”，初步判断为base64加密，使用在线解密尝试，再url解码，得到flag。

文字加密解密 MD5加密/解密 URL加密 JS加/解密 JS混淆加密压缩 ESCAPE加/解密 **BASE64** 散列/哈希 迅雷, 快车, 旋风URL加解密

HEBTUCTF%7Bf1ag\_1s\_w3n\_d4o%7D

SEVCFVFDVEY1N0JmMWFnXzFzX3c3bl9kNG81N0Q=

多行 **Base64加密** **Base64解密**

<https://blog.csdn.net/Crazy198410>

Unicode编码 UTF-8编码 URL编码/解码 Unix时间戳 Ascii/Native编码互转 Hex编码/解码 Html编码/解码

HEBTUCTF{f1ag\_1s\_w3n\_d4o}

utf-8 **UrlEncode编码** **UrlDecode解码**

<https://blog.csdn.net/Crazy198410>

## 2018 护网杯 迟来的签到题



下载附件，解压后是一个文本，里面是一串密文：`AAoHAR1TIiIkUFUjUFQgVyInVSVQJVFVRUSNRX1YgXiJSVyJQVRs=`，初步判断是base64密文，用base64解密后是一串乱码：



查看压缩包内题目提示：`easy xor???`

可以判断是要异或后才能得到flag。写python脚本

```
import base64
str1 = 'AAoHAR1TIiIkUFUjUFQgVyInVSVQJVFVRUSNRX1YgXiJSVyJQVRs='
str2 = base64.b64decode(str1)
for i in range(200):
    tmp=''
    for j in str2:
        tmp += chr(j^i)
    print (tmp)
```

运行后，可以得到flag

```
jz| }  
D  
`jga}3BBD05C04@7BG5E0E111C1?6@>B27B05{  
akf`|2CCE14B15A6CF4D1D000B0>7A?C36C14z  
bhec1@@F27A26B5@E7G2G333A3=4B<@05@27y  
cidb~0AAG36@37C4AD6F3F222@2<5C=A14A36x  
dncey7FF@41G40D3FC1A4A555G5;2D:F63F41  
eobdx6GGA50F51E2GB0@5@444F4:3E:G72G50~  
flag{5DDB63E62F1DA3C6C777E790F8D41D63}  
gm t+z4EEC/2D/3G0E@2B/8666D681G9E50E/2|  
hboiu;JL8=K8<H?JO=M8M999K97>H6J: ?J8=s  
icnht:KKM9<J9=I>KN<L9L888J86?I7K;>K9<r  
j`mkw9HHN: ?I:>J=HM?0:0;;I;5<J4H8=H: ?q  
kaljv8II0;>H; ?K<IL>N;N:: :H:4=K5I9<I;>p  
lfkmq?NNH<90<8L;NK9I<I===0=3:L2N>;N<9w  
mgjlp>00I=8N=9M:OJ8H=H<<<N<2;M30?:0=8v  
ndios=LLJ>;M>:N9LI;K>K?? ?M?18N0L<9L>;u  
oehnr<MMK?:L?;08MH:J?J>>>L>0901M=8M?:t
```

Traffic\_Light

下载是一张图片



对图片进行分解  
得到1688张图片



观察图片，

- 1、发现第2的倍数的图片都是没有灯亮的。忽略不计。
  - 2、绿灯和红灯总和为8或8的倍数时，下一张一定是黄色。
- 由此可以推断为二进制。绿为 1，红为 0。

写脚本进行编码：



```

# -*-coding: utf-8 -*-
from PIL import Image

binstr = ""
flag = ""

def decode(s):
    return ''.join([chr(i) for i in [int(b, 2) for b in s.split(' ')]])

for i in range(1168):
    image=Image.open(r'./202011/'+str(i)+'.jpg')
    # print (image.getpixel((115,55)))#输出颜色值
    # print (image.getpixel((115,145)))
    tmp1 = image.getpixel((115,55))
    tmp2 = image.getpixel((115,150))
    # print (type(tmp1))
    if(tmp1[0] > 250):
        binstr += '1'
    elif(tmp2[1] > 250):
        binstr += '0'
    else:
        binstr += ' '
print (binstr)

for i in range(len(binstr)):
    if i%8==0:
        flag +=decode(binstr[i:i+8])
print(flag)

```

得到flag

```

0110011001101100011000010110011101111011010100000110110000110011001101000111001100110011010111110111000000110100
0111100101011111001101000111010001110100001100110110111001110100001100010011000001101110010111110111010000110000
01011111011101000111001000110100011001100110011000101100011010111110111001100110100011001100011001101110100
0111100101011111011101110110100000110011011011100101111101111001001100000111010101011111001101000111001000110011
010111110011000001110101011101000111001100110001011001000011001101111101
flag{Pl34s3_p4y_4tt3nt10n_t0_tr4ff1c_s4f3ty_wh3n_y0u_4r3_0uts1d3}

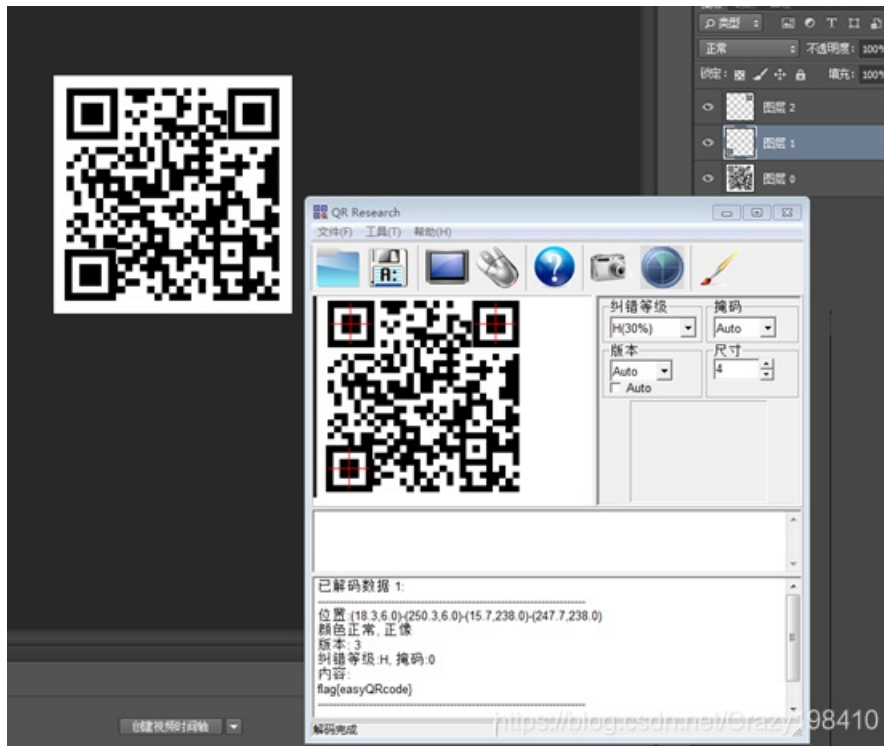
```

**Fix it**

下载后是一张二维码图片，但只有一个黑框



使用photoshop进行修补，并识别：

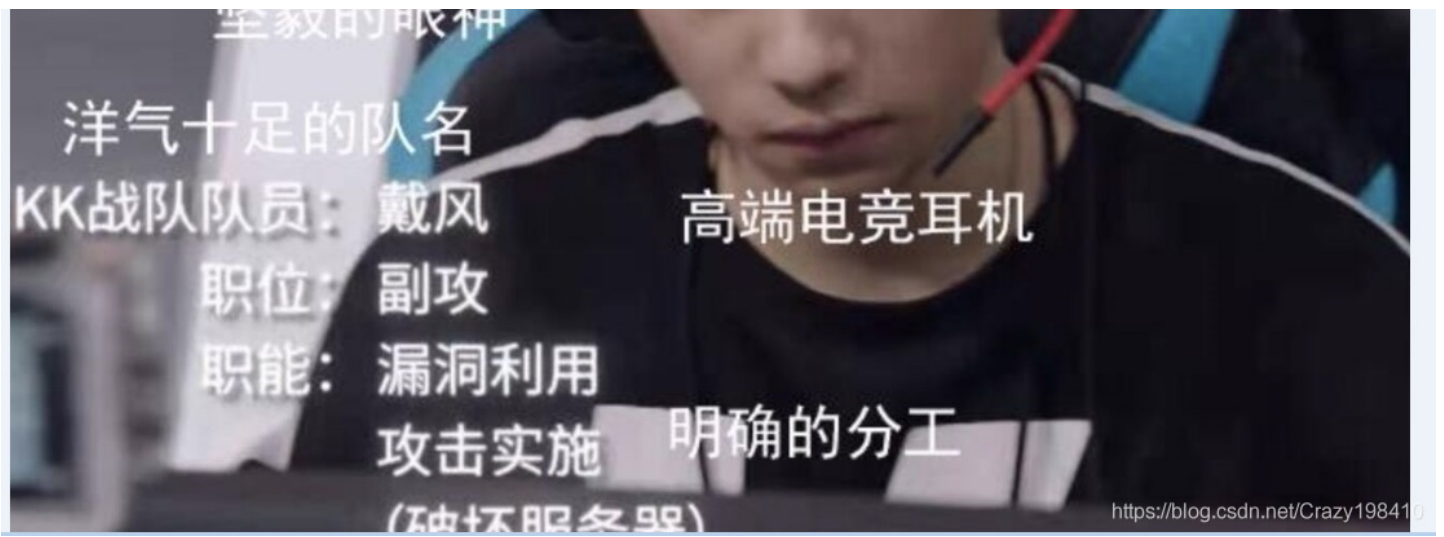


得到flag: flag{easyQRcode}

## 真正的CTFer

下载附件为一张图片





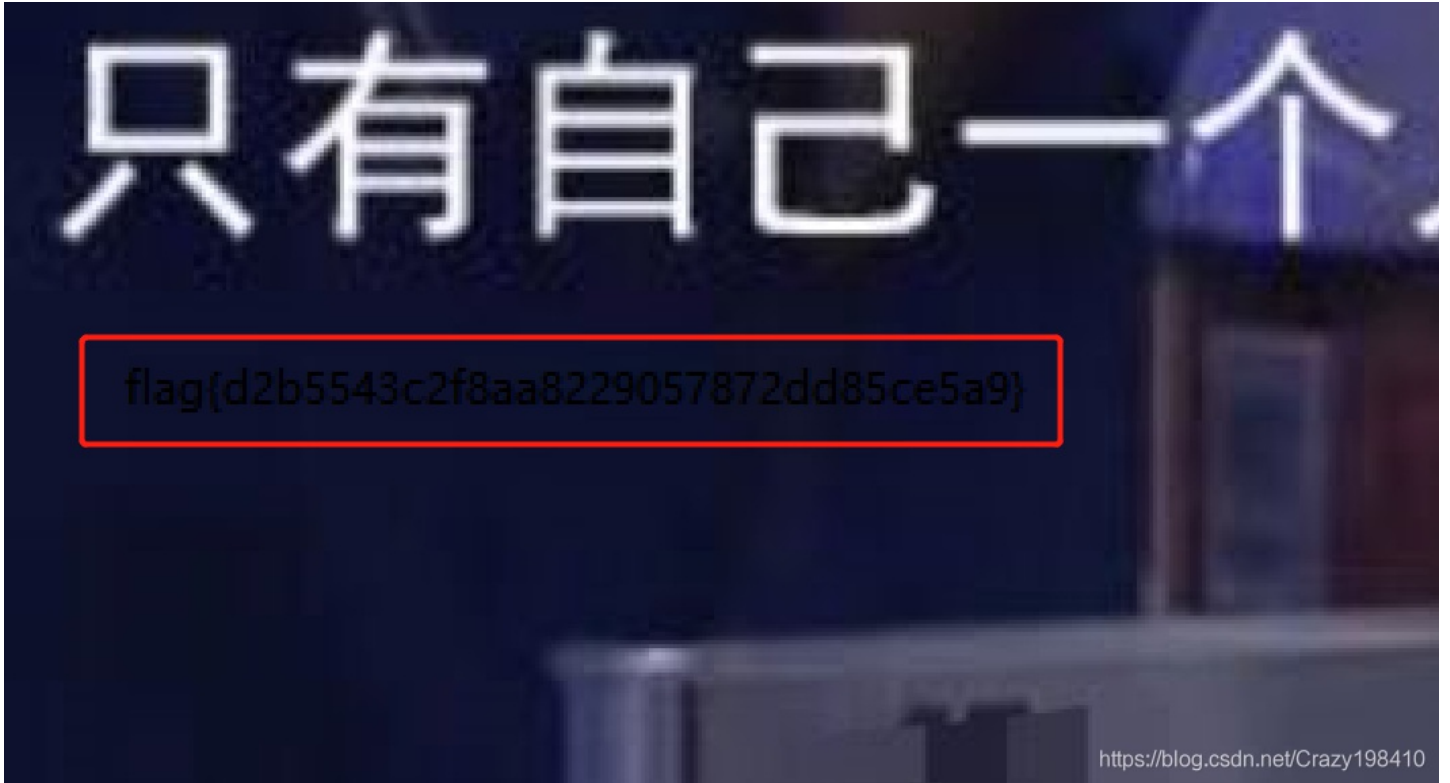
修改高度：

struct PNG_CHUNK chunk[0]	IHDR (Critical, Pu...	8h
uint32 length	13	8h
union CTYPE type	IHDR	Ch
struct PNG_CHUNK_IHDR ihdr	1308 x 5000 (x8)	10h
uint32 width	1308	10h
uint32 height	5000	14h
ubyte bits	8	18h

可以看到下面还有一张图片



将图片放大可以看到flag:



仔细看能看到flag

flag{d2b5543c2f8aa8229057872dd85ce5a9}

[解不开的秘密](#)

下载后是一个压缩包，里有一个file文件，和一个flag.docx文本

文件	大小	日期	类型
file	3,344	2019/5/22 18...	文件
flag.docx	327,680	2019/7/12 9:23	Office Open XM...

用文本工具打开file文件，里面有许多数字和少许的英文。怀疑是十六进制放入010editor中

```
0h: 4D 44 45 4B 49 6C 4E 6C 62 6D 52 44 64 58 52 55 MDEKI1N1bmRdDXRU
0h: 5A 58 68 30 49 6A 31 6B 64 32 39 79 5A 44 6F 77 ZXh0Ij1kd29yZDow
0h: 4D 44 41 77 4D 44 41 77 4D 51 6F 69 52 47 6C 7A MDawMDawMQoiRGlz
0h: 59 57 4A 73 5A 55 78 76 59 32 46 73 53 57 35 77 YWJsZUxvY2FsSW5w
0h: 64 58 52 7A 49 6A 31 6B 64 32 39 79 5A 44 6F 77 dXRzIj1kd29yZDow
0h: 4D 44 41 77 4D 44 41 77 4D 41 6F 69 52 47 6C 7A MDawMDawMAoiRGlz
0h: 59 32 39 75 62 6D 56 6A 64 45 4E 73 61 57 56 75 Y29ubmVjdENSawVu
0h: 64 48 4D 69 50 57 52 33 62 33 4A 6B 4F 6A 41 77 dHMiPW3b3JkOjAw
0h: 4D 44 41 77 4D 44 41 78 43 69 4A 42 62 48 64 68 MDawMDaxCiJBbHdh
0h: 65 58 4E 54 61 47 46 79 5A 57 51 69 50 57 52 33 eXNTaGFyZWQIPWR3
0h: 62 33 4A 6B 4F 6A 41 77 4D 44 41 77 4D 44 41 77 b3JkOjAwMDawMDAw
0h: 43 69 4A 4F 5A 58 5A 6C 63 6C 4E 6F 59 58 4A 6C CiJOZXZlclNoYXJl
0h: 5A 43 49 39 5A 48 64 76 63 6D 51 36 4D 44 41 77 ZCI9ZHdvcMQ6MDAw
0h: 4D 44 41 77 4D 44 41 4B 49 6B 52 70 63 32 4E 76 MDawMDAKIkRpc2Nv
0h: 62 6D 35 6C 59 33 52 42 59 33 52 70 62 32 34 69 bm5lY3RBY3Rpb24i
0h: 50 53 4A 4F 62 32 35 6C 49 67 6F 69 55 6D 56 74 PSJOb25lIgoiUmVt
0h: 62 33 5A 6C 56 32 46 73 62 48 42 68 63 47 56 79 b3ZlV2FsbHBhcGVy
0h: 49 6A 31 6B 64 32 39 79 5A 44 6F 77 4D 44 41 77 Ij1kd29yZDowMDAw
0h: 4D 44 41 77 4D 41 6F 69 55 6D 56 74 62 33 5A 6C MDawMAoiUmVtb3Zl
0h: 55 47 46 30 64 44 56 79 62 69 49 39 5A 48 64 76 UGF0dGVybiI9ZHdv
0h: 63 6D 51 36 4D 44 41 77 4D 44 41 77 4D 44 41 4B cmQ6MDawMDawMDAK
0h: 49 6B 52 70 63 32 46 69 62 47 56 46 5A 6D 5A 6C IkRpc2FibGVFZmZl
0h: 59 33 52 7A 49 6A 31 6B 64 32 39 79 5A 44 6F 77 Y3RzIj1kd29yZDow
0h: 4D 44 41 77 4D 44 41 77 4D 41 6F 69 56 58 4E 6C MDawMDawMAoiVXNl
0h: 53 47 39 76 61 33 4D 69 50 57 52 33 62 33 4A 6B SG9va3MiPW3b3Jk
0h: 4F 6A 41 77 4D 44 41 77 4D 44 41 78 43 69 4A 51 OjAwMDawMDaxCiJQ
0h: 62 32 78 73 51 32 39 75 63 32 39 73 5A 56 64 70 b2xsQ29uc29sZVdp
0h: 62 6D 52 76 64 33 4D 69 50 57 52 33 62 33 4A 6B bmRvd3MiPW3b3Jk
0h: 4F 6A 41 77 4D 44 41 77 4D 44 41 78 43 69 4A 44 OjAwMDawMDaxCiJD
0h: 62 32 31 77 59 58 4A 6C 52 6B 49 69 50 57 52 33 b21wYXJlRkIiPW3b3Jk
0h: 62 33 4A 6B 4F 6A 41 77 4D 44 41 77 4D 44 41 78 b3JkOjAwMDawMDax
0h: 43 69 4A 51 63 6D 39 30 62 32 4E 76 62 44 4D 75 CiJQcm90b2NvbDMu
0h: 4D 79 49 39 5A 48 64 76 63 6D 51 36 4D 44 41 77 MyI9ZHdvcMQ6MDAw
0h: 4D 44 41 77 4D 44 41 4B 49 6D 52 31 62 57 31 35 MDawMDAKImR1bW15
0h: 49 6A 30 69 49 67 6F 3D Ij0iIgo=
```

<https://blog.csdn.net/Crazy198410>

看到最后有个"=", 怀疑是base64。用base64解码:

Windows Registry Editor Version 5.00

[HKEY\_CURRENT\_USER\Software\RealVNC]

[HKEY\_CURRENT\_USER\Software\RealVNC\vnclicensewiz]

"\_AnlClientId"="8f5cc378-2e1d-4670-80e0-d2d81d882561"

"\_AnlSelected"="0"

"\_AnlInclRate"="0.0025"

[HKEY\_CURRENT\_USER\Software\RealVNC\vnserver]

[HKEY\_CURRENT\_USER\Software\RealVNC\VNCViewer4]

"dummy"=""

[HKEY\_CURRENT\_USER\Software\RealVNC\VNCViewer4\MRU]

"00"="127.0.0.1"

"Order"=hex:00,01

"01"="127.0.0.1:5900"

[HKEY\_CURRENT\_USER\Software\RealVNC\WinVNC4]

"Password"=hex:37,5e,be,86,70,b3,c6,f3

"SecurityTypes"="VncAuth"

"ReverseSecurityTypes"="None"

"QueryConnect"=dword:00000000

"PortNumber"=dword:0000170c

"LocalHost"=dword:00000000

"IdleTimeout"=dword:00000e10

"HTTPPortNumber"=dword:000016a8

"Hosts"="+, "

"AcceptKeyEvents"=dword:00000001

"AcceptPointerEvents"=dword:00000001

"AcceptCutText"=dword:00000001

"SendCutText"=dword:00000001

"DisableLocalInputs"=dword:00000000

"DisconnectClients"=dword:00000001

"AlwaysShared"=dword:00000000

"NeverShared"=dword:00000000

"DisconnectAction"="None"

"RemoveWallpaper"=dword:00000000

"RemovePattern"=dword:00000000

"DisableEffects"=dword:00000000

"UseHooks"=dword:00000001

"PollConsoleWindows"=dword:00000001

"CompareFB"=dword:00000001

"Protocol3.3"=dword:00000000

"dummy"=""

可以看到中间位置有 "Password"=hex:37,5e,be,86,70,b3,c6,f3

开头 [HKEY\_CURRENT\_USER\Software\RealVNC\vnserver] 中有RealVNC。于是用 Vccx4.exe 进行破解:

```
检测>vncx4 -W
37
5e
be
86
70
b3
c6
f3
Entered HEX String: 37 5e be 86 70 b3 c6 f3
UNC Password: !QAZ2wsx
```

得到密码: !QAZ2wsx

用密码打开flag.docx, 将图片移开, 并全选修改字体颜色, 可以看到flag



## memory

下载附件后, 用 volatility 进行分析

```

λ python3 vol.py -f memory windows.pslist
Volatility 3 Framework 2.0.0-beta.1
Progress: 100.00 PDB scanning finished
PID PPID ImageFileName Offset(V) Threads Handles SessionId Wow64 CreateTime ExitTime File o
put
4 0 System 0x80ea2660 51 209 N/A False N/A N/A Disabled
540 4 smss.exe 0xff334cc8 3 17 N/A False 2019-01-16 03:10:21.000000 N/A
Disabled
604 540 csrss.exe 0xff2de458 10 283 0 False 2019-01-16 03:10:23.000000 N/A
Disabled
628 540 winlogon.exe 0xff2dbb70 17 262 0 False 2019-01-16 03:10:23.000000 N/A
Disabled
680 628 services.exe 0xff2c5a98 16 325 0 False 2019-01-16 03:10:24.000000 N/A
Disabled
692 628 lsass.exe 0xff2c1da0 20 319 0 False 2019-01-16 03:10:24.000000 N/A
Disabled
848 680 vmacthlp.exe 0xff2b1438 1 25 0 False 2019-01-16 03:10:24.000000 N/A
Disabled
864 680 svchost.exe 0xff2a47b8 5 115 0 False 2019-01-16 03:10:24.000000 N/A
Disabled
932 680 svchost.exe 0xff29a850 10 206 0 False 2019-01-16 03:10:24.000000 N/A
Disabled
1024 680 svchost.exe 0xff28e020 43 792 0 False 2019-01-16 03:10:24.000000 N/A
Disabled
1084 680 svchost.exe 0xff28a020 4 57 0 False 2019-01-16 03:10:24.000000 N/A
Disabled
1372 680 spoolsv.exe 0xff263020 12 123 0 False 2019-01-16 03:10:26.000000 N/A
Disabled
1484 680 vmtoolsd.exe 0xff2785b8 7 266 0 False 2019-01-16 03:10:43.000000 N/A
Disabled
1756 680 svchost.exe 0xff21cda0 8 137 0 False 2019-01-16 03:10:44.000000 N/A
Disabled
1048 892 explorer.exe 0xff201300 12 291 0 False 2019-01-16 03:16:51.000000 N/A
Disabled
1120 680 rundll32.exe 0xff1d51d0 6 162 0 False 2019-01-16 03:16:51.000000 N/A
Disabled
928 1048 vmtoolsd.exe 0xff1ce150 5 174 0 False 2019-01-16 03:16:52.000000 N/A
Disabled
1356 1048 ctfmon.exe 0xff1cc020 1 68 0 False 2019-01-16 03:16:52.000000 N/A
Disabled
1296 1048 DumpIt.exe 0xff206398 1 29 0 False 2019-01-16 03:19:03.000000 N/A
Disabled
384 1296 conime.exe 0xff20d020 1 38 0 False 2019-01-16 03:19:03.000000 N/A
Disabled

```

<https://blog.csdn.net/Crazy198410>

题目是“分析内存镜像,破解管理员的登录密码,flag为明文密码的MD5值”

我们分析镜像中的hash值:

```

Administrator 500 0182bd0bd4444bf867cd839bf040d93b c22b315c040ae6e0efee3518d830362b
Guest 501 aad3b435b51404eeaad3b435b51404ee 31d6cfe0d16ae931b73c59d7e0c089c0
HelpAssistant 1000 132893a93031a4d2c70b0ba3fd87654a fe572c566816ef495f84fdca382fd8bb

```

得到密文:

```

Administrator 500 0182bd0bd4444bf867cd839bf040d93b c22b315c040ae6e0efee3518d830362b
Guest 501 aad3b435b51404eeaad3b435b51404ee 31d6cfe0d16ae931b73c59d7e0c089c0
HelpAssistant 1000 132893a93031a4d2c70b0ba3fd87654a fe572c566816ef495f84fdca382fd8bb

```

进行修改将中间的"改为":

```

Administrator:500:0182bd0bd4444bf867cd839bf040d93b:c22b315c040ae6e0efee3518d830362b
Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0
HelpAssistant:1000:132893a93031a4d2c70b0ba3fd87654a fe572c566816ef495f84fdca382fd8bb

```

存为文件,再用john进行爆破



```
Reading package lists... Done
Building dependency tree
Reading state information... Done
john is already the newest version (1.9.0-Jumbo-1-0kali3).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@DESKTOP-UQR22MA:/mnt/c/Users/Crazy/Desktop# john 123.txt
Using default input encoding: UTF-8
No password hashes loaded (see FAQ)
root@DESKTOP-UQR22MA:/mnt/c/Users/Crazy/Desktop# john 123.txt
Using default input encoding: UTF-8
Using default target encoding: CP850
Loaded 5 password hashes with no different salts (LM [DES 256/256 AVX2])
Warning: poor OpenMP scalability for this hash type, consider --fork=8
Will run 8 OpenMP threads
Proceeding with single, rules:Single
Press 'q' or Ctrl-C to abort, almost any other key for status
Almost done: Processing the remaining buffered candidate passwords, if any.
Warning: Only 674 candidates buffered for the current salt, minimum 2048 needed for performance.
Proceeding with wordlist:/usr/share/john/password.lst, rules:Wordlist
(Guest)
1234567      (Administrator:1)
89          (Administrator:2)
Proceeding with incremental:LM_ASCII
3g 0:00:00:08 0.00% 3/3 (ETA: 2020-11-21 20:29) 0.3468g/s 39148Kp/s 39148Kc/s 78312Kc/s KAWNBUI..KIMR1NK
Warning: passwords printed above might be partial
Use the "--show --format=LM" options to display all of the cracked passwords reliably
Session aborted
```

可以得到密码 123456789

再md5加密，就是flag：

要加密的字符串：

123456789

加密

字符串	123456789
16位 小写	323b453885f5181f
16位 大写	323B453885F5181F
32位 小写	25f9e794323b453885f5181f1b624d0b
32位 大写	25F9E794323B453885F5181F1B624D0B

但提交错误，可能是题目的问题。

## 赢战2019

下载附件，为一张图片





binwalk进行分析:

```
#binwalk -e zhu.jpg
DECIMAL      HEXADECIMAL  DESCRIPTION
-----
28           0x1C         TIFF image data, big-endian, offset of first image directory: 8
12834       0x3222       JPEG image data, JFIF standard 1.02
34115       0x8543       Copyright string: "Copyright 2002 Adobe Systems, Inc."
2973168     0x2D5DF0     JPEG image data, JFIF standard 1.02
2973198     0x2D5E0E     TIFF image data, big-endian, offset of first image directory: 8
2973500     0x2D5F3C     JPEG image data, JFIF standard 1.02
2989418     0x2D9D6A     JPEG image data, JFIF standard 1.02
3008886     0x2DE976     Copyright string: "Copyright (c) 1998 Hewlett-Packard Company"
```

分解出两张图片



对二维码扫描:





无有用信息。

再对二维码图片进行分析：



可以在左下角看到flag

flag{You\_ARE\_SOsmart}

要写全。不是{}内的。。。

## 2020sdnisc-CTF的起源



可以得到flag

```
flag{944776b2c95a350bb27d7038d42b273a  
0  
flag{944776b2c95a350bb27d7038d42b273a
```

补全大括号即可

## 2020sdnisc-简单的js

下载附件是一个js文件  
打开:

```
* @return {string}  
*/  
function pseudoHash(string, method) {  
  // Default method is encryption  
  if (!('ENCRYPT' == method || 'DECRYPT' == method)) {  
    method = 'ENCRYPT';  
  }  
  // Run algorithm with the right method  
  if ('ENCRYPT' == method) {  
    // Variable for output string  
    var output = '';  
    // Algorithm to encrypt  
    for (var x = 0, y = string.length, charCode, hexCode; x < y; ++x) {  
      charCode = string.charCodeAt(x);  
      if (128 > charCode) {  
        charCode += 128;  
      }  
      else if (127 < charCode) {  
        charCode -= 128;  
      }  
      charCode = 255 - charCode;  
      hexCode = charCode.toString(16);  
      if (2 > hexCode.length) {  
        hexCode = '0' + hexCode;  
      }  
      output += hexCode;  
    }  
  }  
  return output;  
}
```

<https://blog.csdn.net/Crazy198410>

是一段代码。给了算法过程和结果。只要逆运算就可以。  
写脚本:

```
s='19131e18041b1d4c47191d19194f1949481a481a1d4c1c461b4d484b191b4e474f1e4b1d4c02'  
flag=''  
for i in range(0,len(s),2):  
    tmp = int(s[i:i+2],16)  
  
    #print (tmp)  
    flag+=chr((255-128)-tmp)  
print (flag)
```

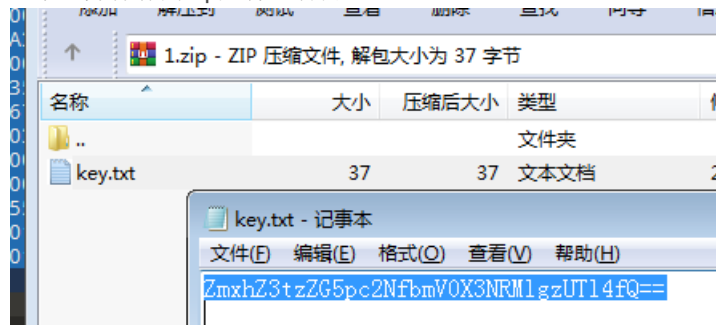
得到flag: flag{db38bff0f67e7eb3c9d274fd180a4b3}

## 2020sdnisc-损坏的流量包

下载附件，是一个流量包，但wireshark打不开。  
用010editor打开。



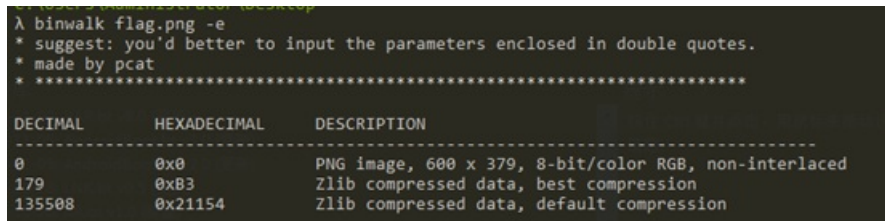
在文件的结尾发现压缩包，提取出来，并保存为zip文件。打开



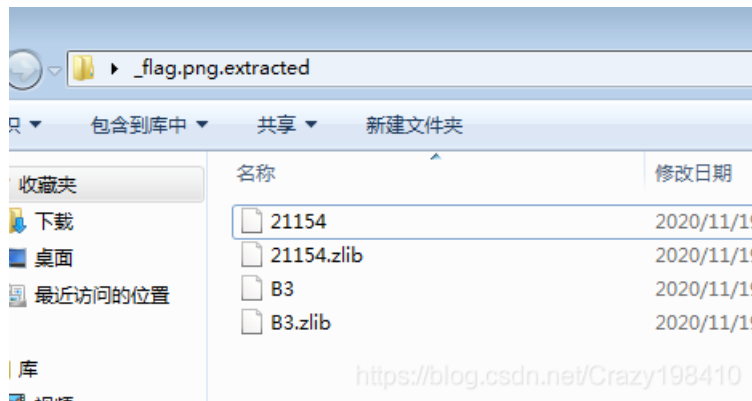
是一个base64加密，解密后，就是flag: flag{sdnisc\_net\_sQ2X3Q9x}

## 2020sdnisc-过去和现在

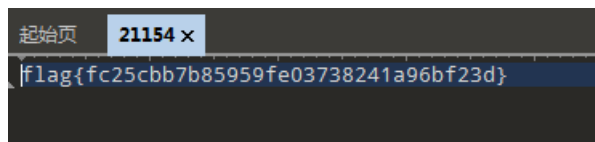
下载附件，是一张图片，用binwalk分析：



得到若干文件，逐一打开。



在21154中发现flag



## 2020sdnisc-左上角的秘密

下载附件，是一个文件和一个脚本。打开脚本：

是一段代码，对图片内容进行了加密，得到附件中的文件。写脚本进行逆运算：

```
flag_dec = open("flag.png", "wb")
def file_decode(flag):
    i = 1
    while True:
        byte_str = flag.read(1)
        if (byte_str == b''):
            exit()
        byte_str = hex_decode(byte_str)
        file_write(flag_dec, byte_str)
        # print(byte_str, end="")
        i = i + 1

def hex_decode(byte_str):
    tmp = int.from_bytes(byte_str, byteorder="big")
    tmp = tmp ^ 128
    if (tmp % 2 == 0):
        tmp = tmp + 1
    else:
        tmp = tmp - 1
    tmp = bytes([tmp])
    return tmp

def file_write(flag_dec, byte_str):
    flag_dec.write(byte_str)

if __name__ == '__main__':
    with open("./flag_enc.hex", "rb") as flag:
        file_decode(flag)
flag_dec.close()
```

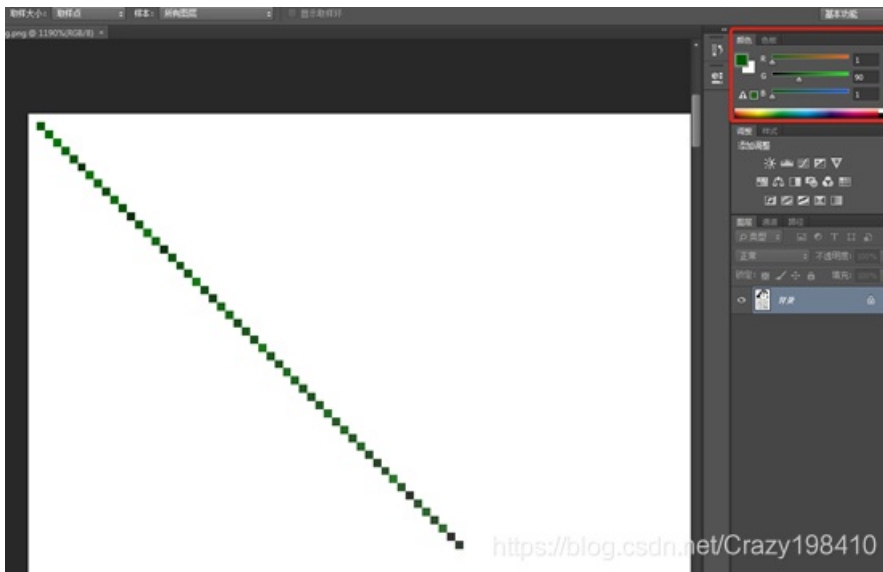
还原出图片



我是一名保安 日夜小区往返  
保卫业主平安 还被骂是憨憨  
上班为了下班 工资只够两餐  
学历只有中专 整天郁郁寡欢  
从来不吃早餐 心里只有加班  
誓死大门守看 要把小偷干翻  
爱情与我无关 依然形只影单  
号称宁缺毋滥 实则哪敢高攀  
人生活了小半 只想不留遗憾  
外头灯火阑珊 给您道声晚安

<https://blog.csdn.net/Crazy198410>

发现图片左上有条线。查看颜色：



<https://blog.csdn.net/Crazy198410>

猜测秘密在绿色中  
使用脚本得到密文：



```

from PIL import Image
image =Image.open('flag.png')
c=0
aa=''
for i in range(120):
    aa+=chr(image.getpixel((c,c))[-2])
    c+=1
print (aa)

```

```

C:\Users\Administrator>C:/Program Files/Python37/python3.exe c:/Users/Administrator/Desktop/Untitled-1.py
yZmxhZ3tjNmU0Yzk5YTYzODhjNWQyYTIhZTZlZjZhODQzY2VhNn0=

```

发现其中秘密:

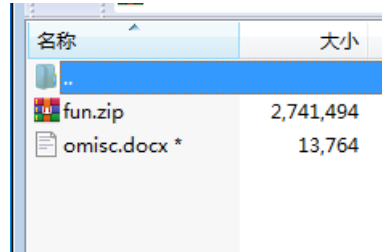
ZmxhZ3tjNmU0Yzk5YTYzODhjNWQyYTIhZTZlZjZhODQzY2VhNn0=

Base64解密后得到flag:

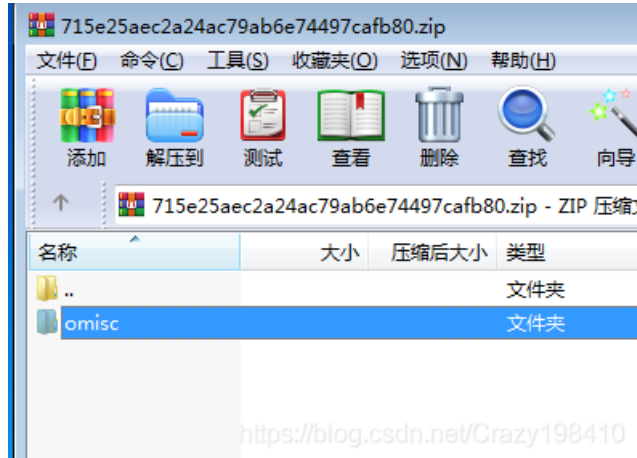
flag{c6e4c99a6388c5d2a9ae6ef6a843cea6}

## 泰湖杯-MISC

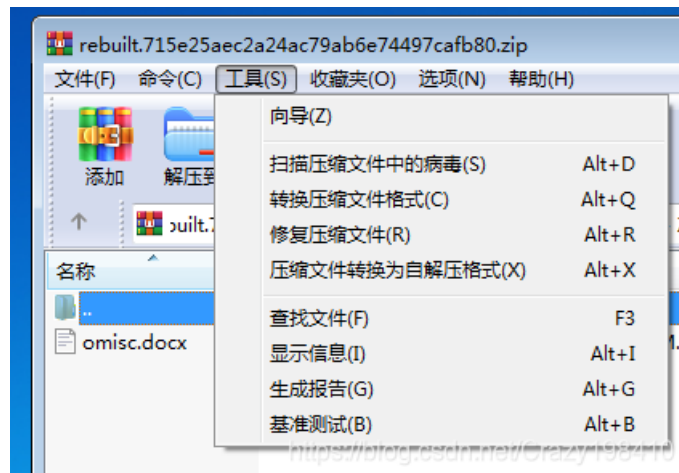
下载附件，是一个压缩包，里面是一个文件和一个压缩包。



尝试各种方法无果后，将附件中的fun.zip删除。



再修复压缩包，可以发现密码没有了。



打开后，是一段密文

```
U2FsdGvKx194m4B5HqBSGYPLTS4bywdKDjH13lrSj/OcwgSAoHBw9X/p2ldEtGx7
EdJFR6rcjyPA+M+aKLZvqE7h7EBFA5LyHYk/5Cns4LV02vM7Dk+T70FIW0IJ3XeA
9pJwFAdAwzeN/0A74u+hLG/oLF1g3djo77yVTCBCs0r7khtOWahv0SYR33tHSq3Yz
JGTBS1Zsj2i/sGC8tTnNfsLI0SQ2JeTJhP/aNU2LmPVTyc3y4kTx+ysw8vasHwen
WoBXfOe2WkorJOCrqdQ8Qqd78TzZ0jRMv6MJO2ytUy/3mebHU9LAWKFluNEh5t
/cUVvtgLs6PquYRX5zEx52HDkV+WgfrNum/AregLJ4c4f6AvG2gBjHVKO6sGEI
uh59jcyN1SvsQEvd7cOD/KWZJE5gqVGUJqXyhauqWPVYUlcuHH6abtQwNuDb+jZ
xMg5QaDzwPhpGRly7NhKu5OgCdhdk17TX7z2/RuNYj6pyfRYNzmqdOFI9B28+law
KO8I5b18WF5JV6chou7riwwDLqQrKMDjUUKZUtdMn0ReDQbR8reeqW/u+LkyhI6w
+222QWgQ2yRd2dhHb1kqNncUlnAEqTPNKRbnia8F/+FycBv+KAwCFPwx9oNTFBYn
4EJL/RjXEkKSCnyH48VynuuOeX2uNIAti214mCbWwH+pxLn4PHIwF3JK819kiDc
jqyQ5y3v+EUer9Sb1WVwllTDW5xtzVP+Yr/U0iki41zMu9BAQPermoa8hZJdE8m
b3oSet+pAM7Ptnyl7FGJ5Ynkpq05AjjMrN+UgV0E/ELc0UhwWw3O0c4u+eYtQkzu/
9+UCRY1Fi+QWFIO3cuWBA4GMGTE1FHWnqnZ683FwrM5bc6TTu3/Q55ppFmqNroX
+ctx5b5xiYeS28XFI2ks6L7aFrQYU833GIERNliZEX8vFqjdnD+tcuQ6Zg9Z7oxh
ATDP9H5d1e9IaxwOA/fDP0qvdKJ+OS5OPljnboywCpP7QqFHZfyc7d2GiraadSOL
+elwfavCqgfGpWMMW5H359IKZASi/HexEcYrA7OZ8GzSxO9Lmk/ea4BD4JD2law
EliDE7yhJApimzJ4IG8EMXFn/rOM3O2PkuSTKFsXu7/XZ3ozAJsPun5RjCmuUFXQ
X++DqXqe6Kbo/hEKwHETq0VbL6qEKkQKf5ce3i6tuZG8OqqPsey0Ku5D2LREqqGG
ysshULZWwvix4u2FUtj4Xg==
Wish everybody have fun!!!!!!
```

<https://blog.csdn.net/Crazy198410>

改后缀。并打开：



<https://blog.csdn.net/Crazy198410>

发现多出现段文字：

```
<w:rPr w:rsidRPr="004C1A55">
  <w:rPr>
    <w:vanish/>
  </w:rPr>
  <w:t>waoootu.epj,nv o</w:t>
</w:r>
</w:p>
- <w:p w:rsidP="00D21705" w:rsidRDefault="004C1A55" w:rsidR="00D21705" w:14:te:
  - <w:hyperlink w:history="1" r:id="rId4">
    - <w:r w:rsidRPr="004C1A55">
      - <w:rPr>
        <w:rStyle w:val="a3"/>
        <w:vanish/>
      </w:rPr>
      <w:t>www.verymuch.net</w:t>
    </w:r>
  </w:hyperlink>
+ <w:r w:rsidR="00D21705" w:rsidRPr="004C1A55">
+ <w:r w:rsidR="00D21705" w:rsidRPr="004C1A55">
- <w:r w:rsidR="00D21705" w:rsidRPr="004C1A55">
```

<https://blog.csdn.net/Crazy198410>

测试各种密码，发现希尔密码能解新发现的两句话：





得到一句新的字符串：  
love and peaceee

用这句话做密码，使用rabbit解密剩余的一大段话：



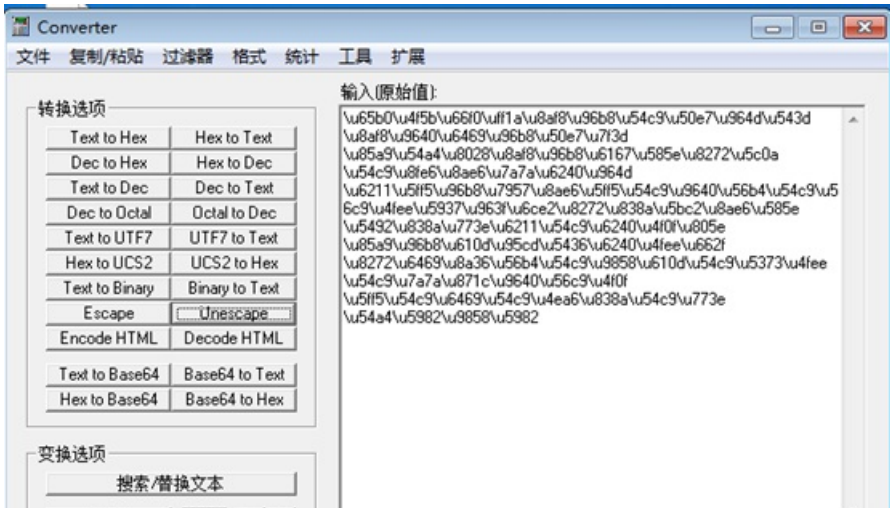
得到：

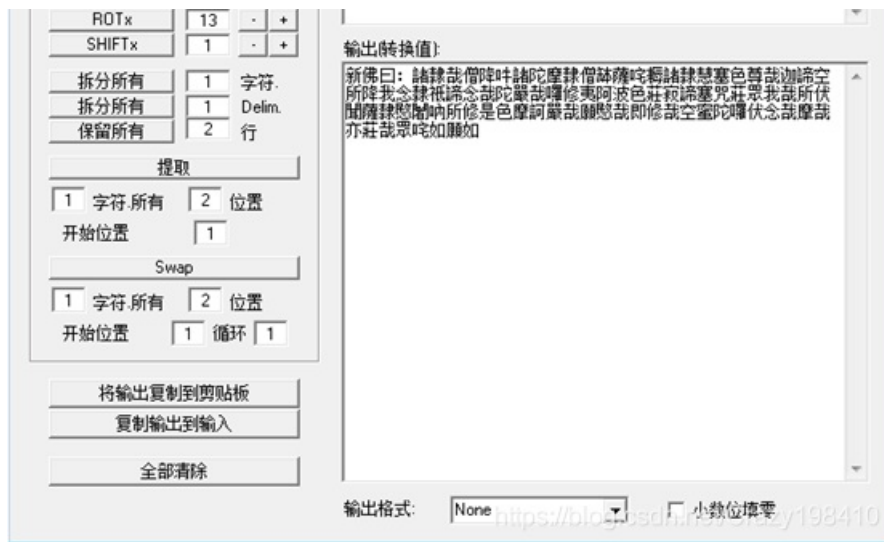
```
LR2TMNLCGBOHKNDGGVRFY5JWGZTDXADVMZTDCYK40U4GCZRYLR2TNTCHBOHKNJUMM4VY5JVGBSTOXDVHE3DIZC40U2TIM3ELR2TQYLGHBOKJW
GQYFY5JWGQ3DSXDVEH3GEOC40U2TAZJXLR2TOZRTMROHKOBVME4VY5JVGRQTIXDVHAYDEOC40U4GCZRYLR2TNTCHBOHKNRNGY3VY5JVHA2WKXD
HAZDOMS40U2WGMDLRL2TKNDHFHOKHODGMU3FY5JYMFSTMXDVG5QTOYK40U3DENBQLR2TSNRUMROHKNSGEYVY5JVMZTDKXDVHE3GEOC40U3TSNJX
LR2TQYLFZGZOHKNGMY2VY5JVGRRTSXDVEH3DIMC40U2TMYRULR2TKNDHFHOKHJWMM4VY5JUMZSWKXDVGU4TGN240U4TMM3GLR2TMY3FGJOHKOBS
G4ZF5YJYGM4GCXDVGVRRGMS40U4GCZJWLR2TKOBVMVOHKNJUHEZF5YJYGM4GCXDVG43TGZK40U3DEMJRLR2TKNDHFHOKHNRSGQYFY5JUMYYGMXDV
HAYDKZK40U4DKYJZLR2TNTCHBOHKNRNGBSFY5JZGVRWIXDVGU2DGN540U3DENBQLR2TIZTFMVHOKNRWJTFY5JYGI3TEXDVG2DMOK40U4GCMZW
LR2TKNTCGROHKNJUMM4VY5JZHA2TQXDVGYTAZC40U2TIYZZLR2TKMXZGNOHKNDGMVSY5JVGRRTSXDVG5QTOYK40U4DOMLRL2TSNRUGBOHKNJW
MM4VY5JUMYYGMXDVGVGMNK40U2TIYZZLR2TMNBWHFOHKNJUMM4VY5JUMVQTMXDVHAZTQYK40U2TIYZZLR2TONZTMVOHKNJUME2FY5JVHE4DEXDV
HE4DKOC40U2TSOBS
```

再进行base32的解密：



再Unicode解码：





再新佛曰解码：



得到一段话，用这然话解压fun.zip

得到音频文件。

再分析频谱，即可得flag



可乐加冰

下载附件，是一张图片：



用binwalk分析：

```
λ binwalk -e data.png
* suggest: you'd better to input the parameters enclosed in double quotes.
* made by pcat
* *****
DECIMAL      HEXADECIMAL  DESCRIPTION
-----
0            0x0         PNG image, 498 x 887, 8-bit/color RGBA, non-interlaced
91          0x5B         Zlib compressed data, compressed
175766     0x2AE96     Zlib compressed data, default compression
```



下载附件，是一个流量包。用wireshark打开：  
并追踪tcp流：  
可以看到其中一个流如下图：



可以看到flag。对流量观察规律：

Destination	Protocol	Length	Info
192.168.74.1	DNP 3.0	78	Read, Class 123
192.168.74.132	DNP 3.0	71	Response
192.168.74.1	TCP	54	52363 → 20000 [ACK] Seq=50...
192.168.74.1	DNP 3.0	78	Read, Class 123
192.168.74.132	DNP 3.0	91	Response
192.168.74.1	DNP 3.0	69	Confirm
192.168.74.132	TCP	54	20000 → 52363 [ACK] Seq=46...
192.168.74.1	DNP 3.0	78	Read, Class 123
192.168.74.132	DNP 3.0	71	Response

发现含有flag信息的流长度都是91。按长度排序：  
逐流进行拼接：

```

15 00  ..)·1·P·V·····E·
:0 a8  -M·@·...·J·...
i0 18  J·N·...·c·V·j3R·P·
}8 e3  .....d·D·
}0 00  .....(·...f·...
      ...6·vu·...

```

```

..).1.P.V.....E.
.M.@.....J...
J.N...c.V.j3SFP.
.....d.D.....
.....(.....1.
&.....vu...

```

可以得到flag:

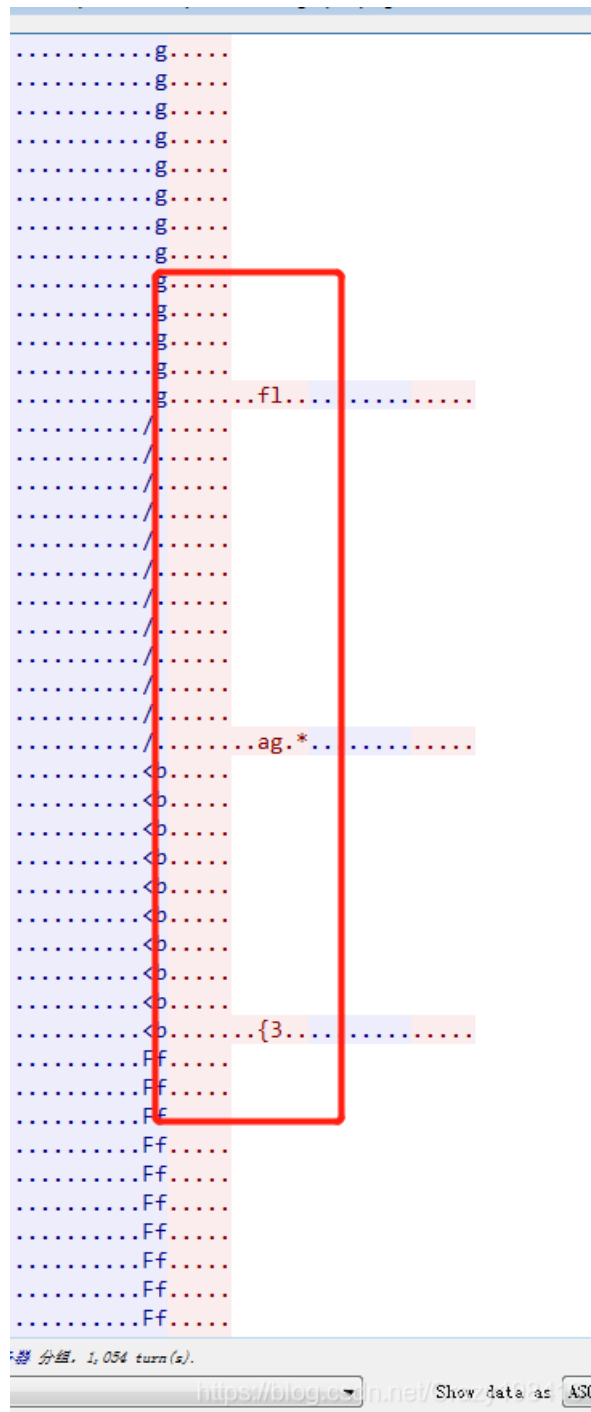
flag{d989e2b92ea671f5d30efb8956eab1427625c}

## pcap\_analysis

下载附件，为一个流量包。

用wireshark打开。并追踪tcp流

在其中一个流中发现如下图：



拼接得到flag: flag{323f986d429a689d3b96ad12dc5cbc701db0af55}



## 网鼎杯 2020 boom

下载附件，为一个exe文件，打开。

先是给了一段Md5码，在线进行爆破：



得到通关密码：en5oy

第二关是一个三元一次方程

```
This time:Here are have some formulas
3x-y+z=185
2x+3y-z=321
x+y+z=173
input: x =
```

进行爆破：

```
for x in range(100):
    for y in range (100):
        for z in range(100):
            if (3*x-y+z==185)&(2*x+3*y-z==321)&(x+y+z==173):
                print (x,y,z)
```

得到解：

74

68

31

第三关是一个一元二次方程

```
Last time: Kill it
x*x+x-7943722218936282=0
input x: |
```

一样爆破：

```
for x in range(1000000000):
    if(x*x+x==7943722218936282):
        print (x)
        break
```

得到解：89127561

最后得到flag：flag{en5oy\_746831\_89127561}