bugkuCTF平台逆向题第五道love题解

原创

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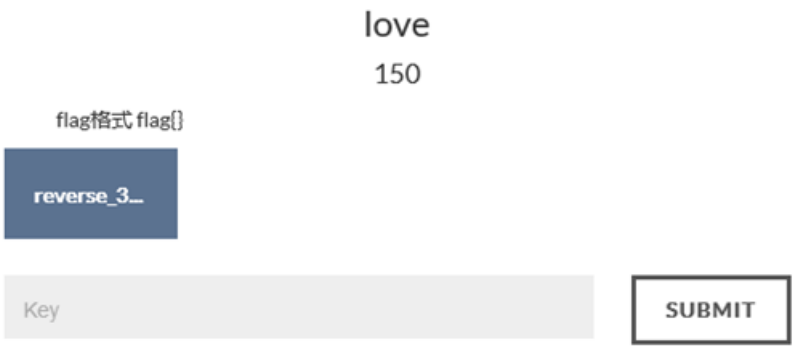
题目链接：

http://123.206.31.85/files/99278e700add95793a765b13ab1314ea/reverse_3.exe

tips：



查壳无壳（截图略）

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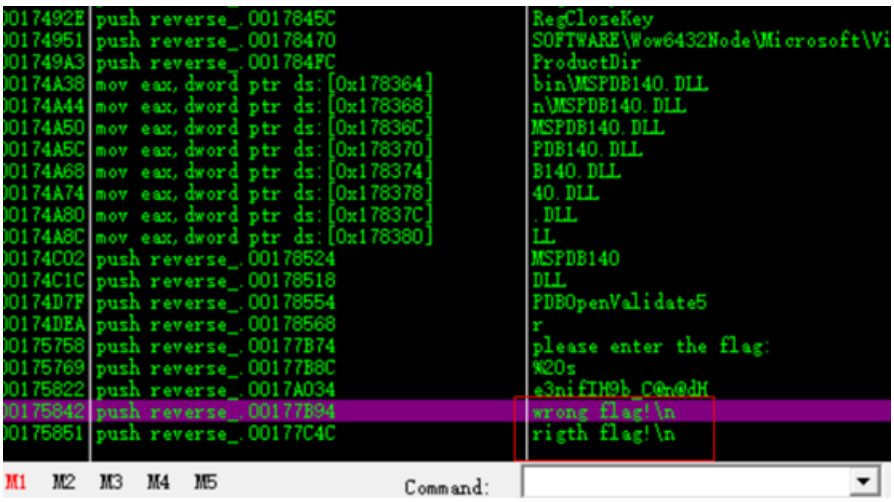


随意输入111111111111111111

```
please enter the flag:111111111111111111111
```

```
eax=0253E1E0, (ASCII "MTExMTExMTExMTExMTExMTExMTE=")
```

发现进行了base64加密

再向下单步 发现、

```
0017581F   8BF4          mov esi,esp
00175821   50            push eax
00175822   68 34A01700   push reverse_.0017A034                  e3niFIH9b_C@n@dH
00175827   8D8D 6CFFFFFF lea ecx,dword ptr ss:[ebp-0x94]
0017582D   51            push ecx
0017582E   FF15 84B11700 call dword ptr ds:[<&ucrtbased.strncmp> ucrtbase.strncmp
00175834   83C4 0C       add esp,0xC
00175837   3BF4          cmp esi,esp
00175839   E8 E9B8FFFF   call reverse_.00171127
0017583E   85C0          test eax,eax
00175840   74 0F         je short reverse_.00175851
00175842   68 947B1700   push reverse_.00177B94                  wrong flag!\n
00175847   E8 E3BAFFFF   call reverse_.0017132F
0017584C   83C4 04       add esp,0x4
0017584F   EB 0D         jmp short reverse_.0017585E
00175851   68 4C7C1700   push reverse_.00177C4C                  rigth flag!\n
00175856   E8 D4BAFFFF   call reverse_.0017132F
0017585B   83C4 04       add esp,0x4
0017A034=reverse_.0017A034 (ASCII "e3niFIH9b_C@n@dH")
```

结合IDA看下

```
.text:004119E0 00000007 C offset
.text:004158BC 0000000C C base64input
.text:004158C8 00000006 C input
.text:004158CE 00000005 C nlen
.text:004158D3 00000D02 C
.rdata:00417B30 00000042 C ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/=
.rdata:00417B74 00000017 C please enter the flag:
.rdata:00417B8C 00000005 C %20s
.rdata:00417B94 0000000D C wrong flag!\n
.rdata:00417BE1 0000001B C tack around the variable '
.rdata:00417BFC 00000011 C ' was corrupted.
.rdata:00417C11 0000000E C he variable '
.rdata:00417C20 0000002B C ' is being used without being initialized.
.rdata:00417C4C 0000000D C rigth flag!\n
.rdata:00417C70 000000DD C The value of ESP was not properly saved across a function call.  This is usually a result of calli...
.rdata:00417D80 0000011D C A cast to a smaller data type has caused a loss of data.  If this was intentional, you should m...
.rdata:00417ED8 0000001D C Stack memory was corrupted\n\r
```

```
int sub_4156E0()

{

size_t v0;// eax@6

constchar*v1;// eax@6

size_t v2;// eax@9

char v4;// [sp+0h] [bp-188h]@6

char v5;// [sp+Ch] [bp-17Ch]@1

size_t v6;// [sp+10h] [bp-178h]@3

size_t j;// [sp+DCh] [bp-ACh]@6

size_t i;// [sp+E8h] [bp-A0h]@1
```

```
char Dest[108];// [sp+F4h] [bp-94h]@5
char Str;// [sp+160h] [bp-28h]@6
char v11;// [sp+17Ch] [bp-Ch]@6
unsignedint v12;// [sp+184h] [bp-4h]@1
int savedregs;// [sp+188h] [bp+0h]@1

memset(&v5,0xCCu,0x17Cu);
v12 =(unsignedint)&savedregs ^ __security_cookie;
for( i =0;(signedint)i <100;++i )
{
v6 = i;
if( i >=0x64)
sub_411154();
Dest[v6]=0;
}
sub_41132F("please enter the flag:", v4);
sub_411375("%20s",(unsignedint)&Str);
v0 = j_strlen(&Str);
v1 =(constchar*)sub_4110BE(&Str, v0,&v11);
strncpy(Dest, v1,'(');
sub_411127();
i = j_strlen(Dest);
for( j =0;(signedint)j <(signedint)i;++j )
Dest[j]+= j;
v2 = j_strlen(Dest);
strncmp(Dest, Str2, v2);
if( sub_411127())
sub_41132F("wrong flag!\n", v4);
else
sub_41132F("rigth flag!\n", v4);
```

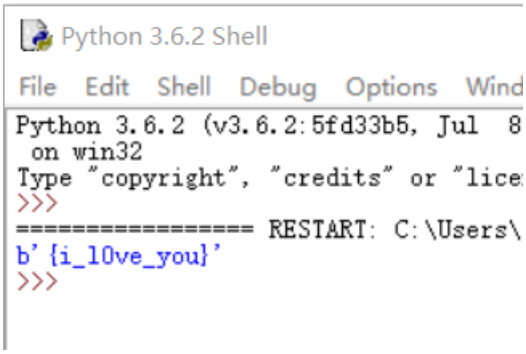
```
sub_41126C(&savedregs,&dword_415890);

sub_411280();

return sub_411127();

}
```

分析可知:将输入的串Str1先进行base64加密 再与串Str2比较 若相等 则输出"right flag"

由此，我们只需将Str2也就是"e3niflH9b_C@n@dH"进行解密即可

Python脚本：

```
import base64

s ="e3nifIH9b_C@n@dH"

flag =""

for i in range(len(s)):

flag += chr(ord(s[i])- i)

flag = base64.b64decode(flag)

print(flag)
```



所以得到flag{i_l0ve_you}