# **HGAME 2022 Week1 writeup by Halo**

# HGAME 2022 Week1 writeup by Halo CRYPTO RSA Attack 3 IoT 饭卡的UNO2.0

卡中毒

**WEB** 

MISC

Vidar shop demo

## **CRYPTO**

#### **RSA Attack 3**

使用 RsaCtfToo1 解密。先自动探测方法,发现可以使用wiener。

```
[*] Performing partial_q attack on /tmp/tmpp1*87a6j.

[*] Performing primorial_pm1_gcd attack on /tmp/tmpp1*87a6j.

[*] Performing SQUFOF attack on /tmp/tmpp1*87a6j.

[*] Performing boneh_durfee attack on /tmp/tmpp1*87a6j.

[*] Performing boneh_durfee because sage binary is not installed

[*] Performing small_crt_exp attack on /tmp/tmpp1*87a6j.

Can't load small_crt_exp because sage binary is not installed

[*] Performing qicheng attack on /tmp/tmpp1*87a6j.

Can't load qicheng because sage binary is not installed

[*] Performing z3_solver attack on /tmp/tmpp1*87a6j.

[*] Performing siqs attack on /tmp/tmpp1*87a6j.

Can't load siqs because yafu binary is not installed

[*] Performing pollard_p_1 attack on /tmp/tmpp1*87a6j.

Can't load siqs because yafu binary is not installed

[*] Performing pollard_p_1 attack on /tmp/tmpp1*87a6j.

[*] Performing wiener attack on /tmp/tmpp1*87a6j.

[*] Performing wiener attack on /tmp/tmpp1*87a6j.

[*] Performing wiener attack on /tmp/tmpp1*87a6j.

[*] Parforming wiener attack on /tmp/tmpp1*87a6j.
```

#### payload:

python3 RsaCtfTool.py -n 5074191.....759 -e 7731019.....095 --uncipher 1652517.....224 -- attack wiener

```
546270993097522158082200674955614120813205415406795032182320202799471591755475178115012808465962261651480
137622938611315443314441650701866721860274100826716028925087394737241436983961053926231640257121243292549
333535093847484031543423227252031830503281437366313339904455371198558653482212152776083729529427021040889
409521428515236516395744090754841068574036514531210365777676724306127280224443708742230017785803876351973
963978517635915434840231345518765912485579801829819677824090542772<u>24 -- attack wiener</u>
private argument is not set, the private key will not be displayed, even if recovered.
[*] Testing key /tmp/tmp4sxrfrnh.
[*] Performing wiener attack on /tmp/tmp4sxrfrnh.
100%|
3%|
                    | 1260/1260 [00:03<00:00, 362.25it/s]
                            | 38/1260 [00:00<00:00, 2746.10it/s]
[*] Attack success with wiener method !
Results for /tmp/tmp4sxrfrnh:
Unciphered data :
94f553a6b4e4f77217448452a5052494e6349706c452a624568496e642557496e4e45722361545461634b7d
INT (big endian): 176682944595673240063788601764110191909427842736769909066978<u>679521165615012306986062</u>74
797192505746112375346461902662540105829245
INT (little endian): 51115690318514694151511243213378018649782372786286387204011661763828914324163257096
050419995652783010974350044078653465136503487037301448057808296807631095970429567252025461790225242856536
437409519009005607281549381537037744054987985722526411778913227365624299549025905974027208276439779471455
118057449763447955125419349063614554383557073509825793261257311085018829460474772800400141165775493248459
801315975182554445147524162483777171765792674315005452339047117304759261199063568311407006690877083106987
918040356623165749182889897437488014383994806253819387061235320933602318858019154622926727300733463805267
025412421958349088809136764261580071869334883579834726223518270641845325951869073400419255731625385932538
688597427669761278734215614879041449392373013597311734684758698465728302271342349520185302326533988130585
327662337738736250832141613733055456725530352915425932888475802583438400345434819763411786849621354423984
3866885660842807290076730505121496383441600551719372505859831917043171325185254012185967267707617280
utf-8 : hgame{d0|Y0U:kNOw!tHE*PRINcIplE*bEhInd%WInNEr#aTTacK}
aTTacK}
```

#### IoT

## 饭卡的UNO2.0

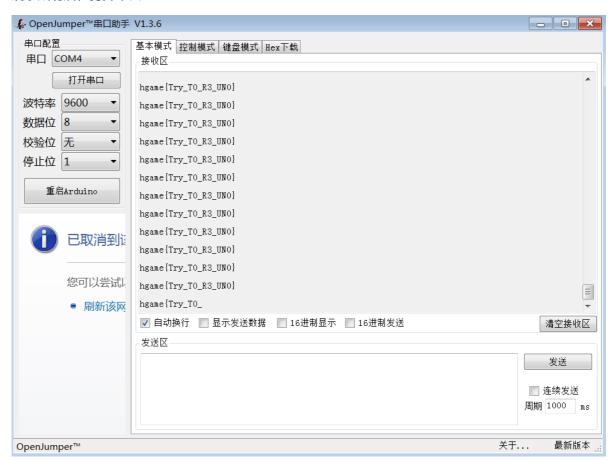
尝试了诸多方法,逆向固件识别。直接把固件烧录进uno试试吧

- 1.高版本系统有兼容性问题。实测win11 21H2无法烧录;虚拟机win7正常
- 2.文件夹名的™会造成报错。路径中不要出现!

这个软件很坑,让我一度以为固件有问题。



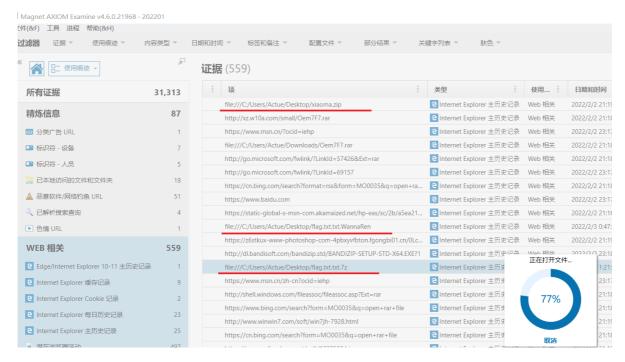
#### 烧录成功后, 打开串口



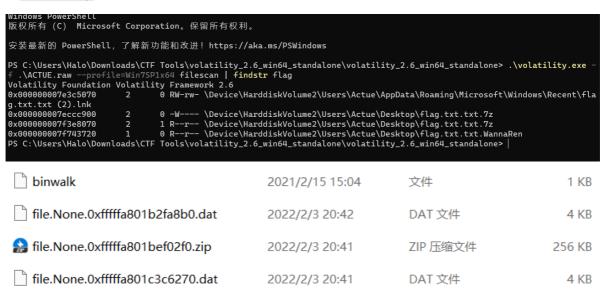
## **MISC**

## 卡中毒

#### 使用 AXIOM 打开 raw 文件。发现几个可疑的文件记录



#### 用volatility尝试把这几个文件提取出来。



提取出来的几个文件中,使用 binwalk 发现了其中一个压缩包文件。解压得到

flag.txt.txt.WannaRen。查询得知 WannaRen 勒索病毒。使用 火绒WannaRen专用解密工具 解密该文件,得到 flag.txt.txt

新佛曰: 諸隸僧降閦吽諸陀摩閦隸僧缽薩閦願耨願嘚願諦閦諸囉閦嘇劫嘇閦亦伏迦薩摩愍心薩摩降 眾閦聞諸阿我閦嚩諸寂嘚咒咒莊閦我薩闍嚩劫閦嘇薩迦聞色須嘇聞我吽伏閦是般如閦

根据经验, 发现是与佛论禅, 但不完全是。检索之后找到新约与佛论禅

## 新约佛论禅

hgame{F1srt\_STep\_0f\_MeM0rY\_F0renS1cs}

听佛说宇宙的奥秘 ↓↓ 参悟佛所言的真谛 ↑↑ 帮助 ??

新佛曰: 諸隸僧降閦吽諸陀摩閦隸僧缽薩閦願耨願嘚願諦閦諸囉閦嘇劫嘇閦亦伏迦薩摩愍心薩摩降眾閦聞諸阿我閦嚩 諸寂嘚咒咒莊閦我薩闍嚩劫閦嘇薩迦聞色須嘇聞我吽伏閦是般如閦

## **WEB**

## Vidar shop demo

误打误撞,用了账号 123 密码 123 ,登录了某个大佬的账号,直接拿到 flag

这样不太好。研究研究怎么做吧

考点:条件竞争

一番探索后,发现订单列表中的删除居然是退款。下几个订单并付款。打开 Burp Suite 的 Proxy。重复点击删除产生多个退款请求的包。点击关闭 Intercept ,让多个请求包同时发出,其中有些订单重复退款。得到足够的余额后,正常购买得到 flag。

注:如果使用 Intruder 模块重放同一个退款请求,在第一个包后似乎有停顿,难以达到同时发出请求的效果。尝试了几次都失败了。



