Malicious document targets Vietnamese officials

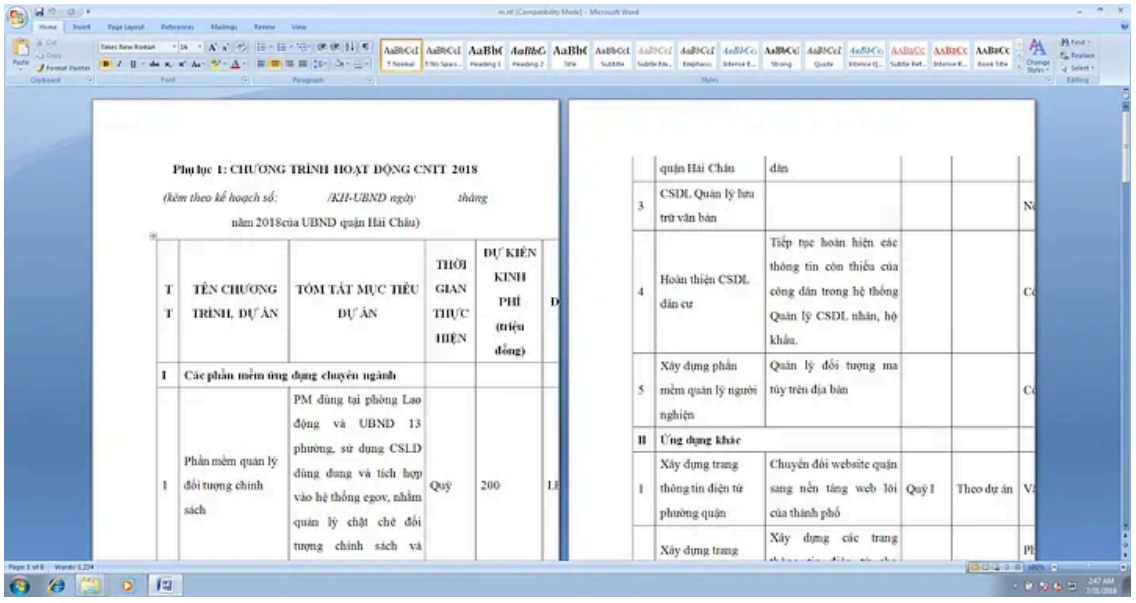
By Sebdraven

Published: 2018-08-13 · Archived: 2026-04-05 12:43:20 UTC

After our investigation of APT SideWinder, we've done a yara rule for hunting RTF document exploiting the CVE-2017–11882.

We found a document written in Vietnamese dealing with a summary about differents projects in the district Hải Châu of Đà Nẵng.

Press enter or click to view image in full size



Phụ lục 1: CHƯƠNG TRÌNH HOẠT ĐỘNG CNTT 2018

(kèm theo kế hoạch số: /KH-UBND ngày tháng
năm 2018của UBND quận Hải Châu)

TT	TÊN CHƯƠNG TRÌNH, DỰ ÁN	TÓM TẮT MỤC TIÊU DỰ ÁN	THỜI GIAN THỰC HIỆN	DỰ KIẾN KINH PHÍ (triệu đồng)	
I	Các phần mềm ứng dụng chuyên ngành				
1	Phần mềm quản lý đối tượng chính sách	PM dùng tại phòng Lao động và UBND 13 phường, sử dụng CSLD dùng dung và tích hợp vào hệ thống egov, nhằm quản lý chặt chẽ đối tượng chính sách và	Quý	200	LĐ

	quận Hải Châu	dân			
3	CSDL Quản lý lưu trữ văn bản				Nộ
4	Hoàn thiện CSDL dân cư	Tiếp tục hoàn hiện các thông tin còn thiếu của công dân trong hệ thống Quản lý CSDL nhân, hộ khẩu.			Có
5	Xây dựng phần mềm quản lý người nghiện	Quản lý đối tượng ma túy trên địa bàn			Có
II	Ứng dụng khác				
1	Xây dựng trang thông tin điện tử phường quận	Chuyển đổi website quận sang nền tảng web lõi của thành phố	Quý I	Theo dự án	Vă
	Xây dựng trang	Xây dựng các trang			Ph

RTF document

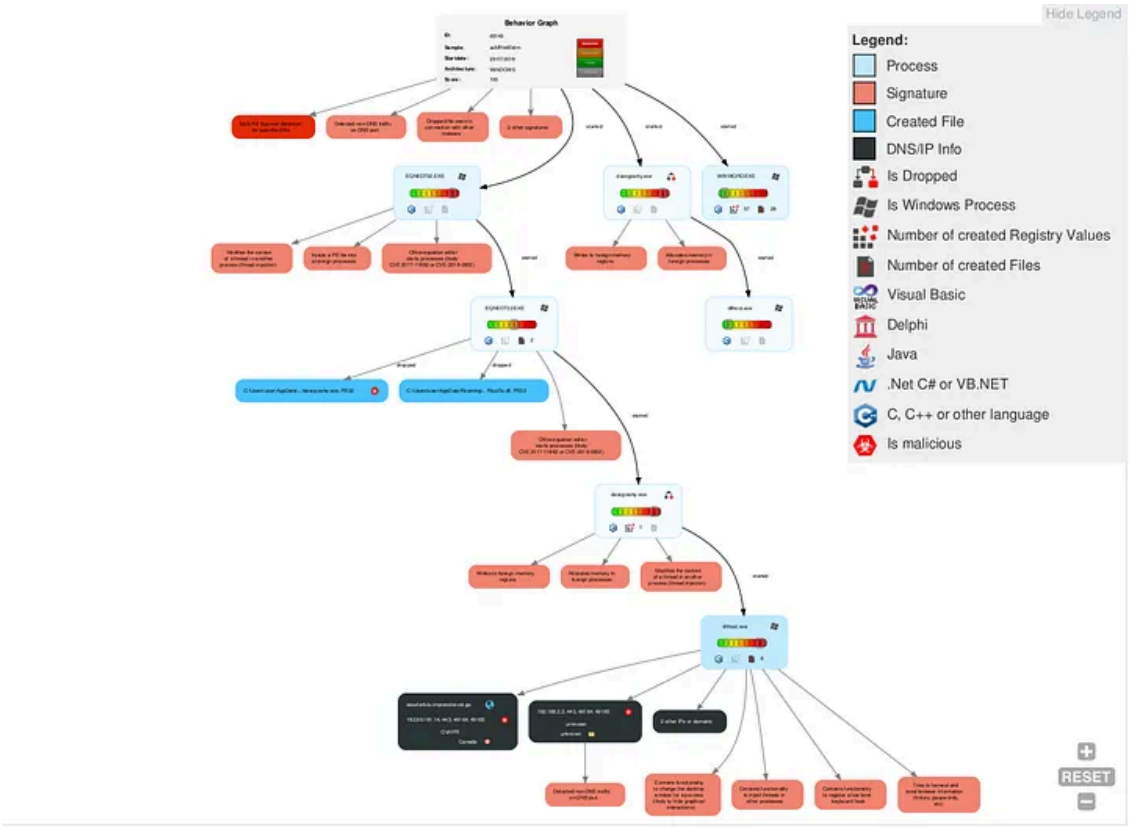
In this article, we'll detail the infection chains and the infrastructures of the attackers and the TTPs of this campaign.

The infrastructures and TTPs during this campaign seem to the Chinese hacking group 1937CN.

Infection chains

Joe sandbox has a good representation of the behaviour of the infection.

Press enter or click to view image in full size



This rtf document is really malicious and it exploits the equation vulnerability to write two files in the system:

1. A dll named RasTls.dll
2. A executable file named dascgosrky.exe

This document is interesting to analyze so let’go !

RTF analysis

With rtfobj, we found three ole objects in the document:

two non well formed ole object and a third named package ole object.

Press enter or click to view image in full size

```
================================================================================
File: '42162c495e835cdf28670661a53d47d12255d9c791c1c5653673b25fb587ffed' - size: 765121 bytes
---+----------+------------------------------------------------------------
id |index     |OLE Object
---+----------+------------------------------------------------------------
0  |000305E8h |format_id: 2 (Embedded)
   |          |class name: 'Package'
   |          |data size: 273608
   |          |OLE Package object:
   |          |Filename: u'8.t'
   |          |Source path: u'C:\\Aaa\\tmp\\8.t'
   |          |Temp path = u'C:\\Users\\ADMINI~1\\AppData\\Local\\Temp\\8.t'
---+----------+------------------------------------------------------------
1  |000B6010h |Not a well-formed OLE object
---+----------+------------------------------------------------------------
2  |000B5FFEh |Not a well-formed OLE object
---+----------+------------------------------------------------------------
```

The package ole object is used to write a file in the disk when the document is opened at the destination described by the ole object.

That's why, there is a path and a name in the ole object.

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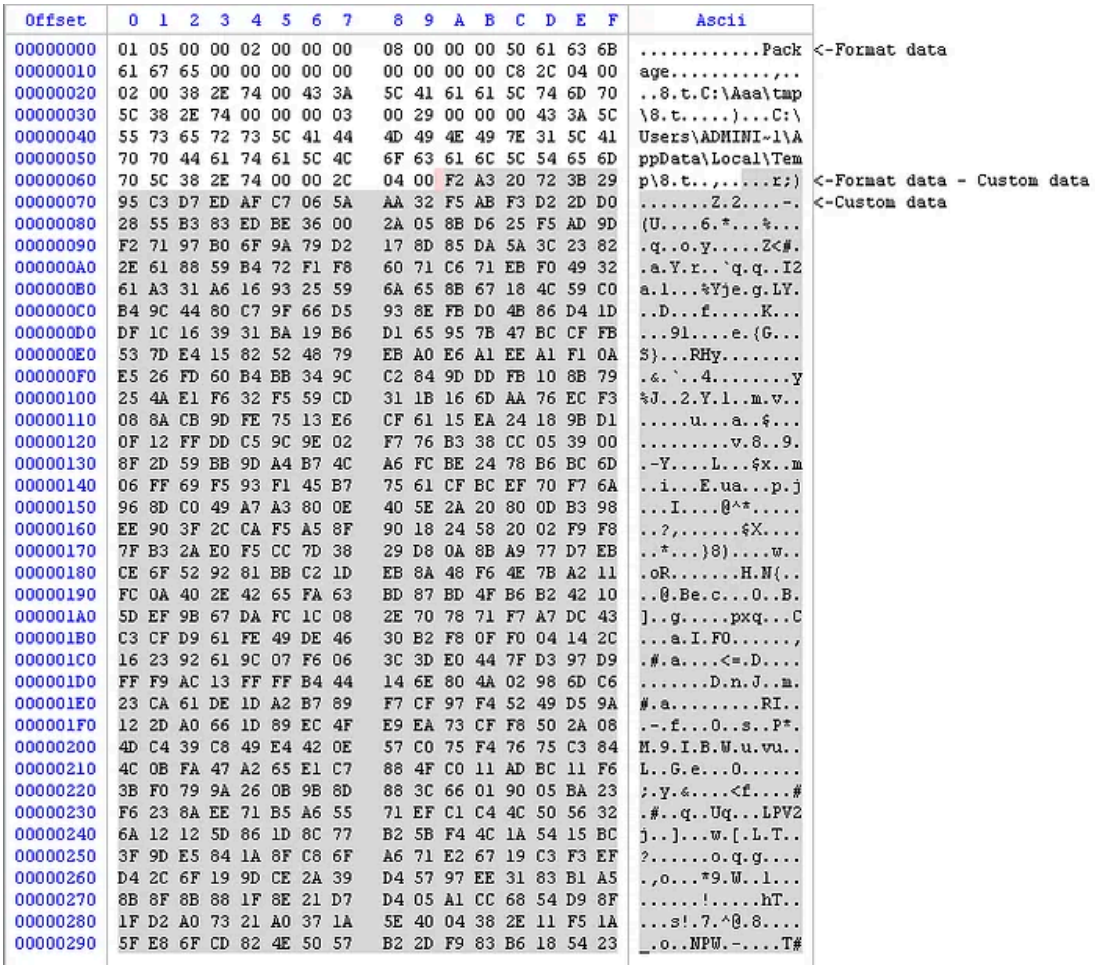

Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	Ascii	
00000000	01	05	00	00	02	00	00	00	08	00	00	00	50	61	63	6B	............Pack	<-Format data
00000010	61	67	65	00	00	00	00	00	00	00	00	00	C8	2C	04	00	age.........,..	
00000020	02	00	38	2E	74	00	43	3A	5C	41	61	61	5C	74	6D	70	..8.t.C:\Aaa\tmp	
00000030	5C	38	2E	74	00	00	00	03	00	29	00	00	00	43	3A	5C	\8.t.....)...C:\	
00000040	55	73	65	72	73	5C	41	44	4D	49	4E	49	7E	31	5C	41	Users\ADMINI~1\A	
00000050	70	70	44	61	74	61	5C	4C	6F	63	61	6C	5C	54	65	6D	ppData\Local\Tem	
00000060	70	5C	38	2E	74	00	00	2C	04	00	F2	A3	20	72	3B	29	p\8.t..,....r;)	<-Format data - Custom data
00000070	95	C3	D7	ED	AF	C7	06	5A	AA	32	F5	AB	F3	D2	2D	D0	.......Z.2....-.	<-Custom data
00000080	28	55	B3	83	ED	BE	36	00	2A	05	8B	D6	25	F5	AD	9D	(U....6.*...%...	
00000090	F2	71	97	B0	6F	9A	79	D2	17	8D	85	DA	5A	3C	23	82	.q..o.y.....Z<#.	
000000A0	2E	61	88	59	B4	72	F1	F8	60	71	C6	71	EB	F0	49	32	.a.Y.r..`q.q..I2	
000000B0	61	A3	31	A6	16	93	25	59	6A	65	8B	67	18	4C	59	C0	a.1...%Yje.g.LY.	
000000C0	B4	9C	44	80	C7	9F	66	D5	93	8E	FB	D0	4B	86	D4	1D	..D...f.....K...	
000000D0	DF	1C	16	39	31	BA	19	B6	D1	65	95	7B	47	BC	CF	FB	...91....e.{G...	
000000E0	53	7D	E4	15	82	52	48	79	EB	A0	E6	A1	EE	A1	F1	0A	S}...RHy........	
000000F0	E5	26	FD	60	B4	BB	34	9C	C2	84	9D	DD	FB	10	8B	79	.&.`..4........y	
00000100	25	4A	E1	F6	32	F5	59	CD	31	1B	16	6D	AA	76	EC	F3	%J..2.Y.1..m.v..	
00000110	08	8A	CB	9D	FE	75	13	E6	CF	61	15	EA	24	18	9B	D1	.....u...a..$...	
00000120	0F	12	FF	DD	C5	9C	9E	02	F7	76	B3	38	CC	05	39	00	.........v.8..9.	
00000130	8F	2D	59	BB	9D	A4	B7	4C	A6	FC	BE	24	78	B6	BC	6D	.-Y....L...$x..m	
00000140	06	FF	69	F5	93	F1	45	B7	75	61	CF	BC	EF	70	F7	6A	..i...E.ua...p.j	
00000150	96	8D	C0	49	A7	A3	80	0E	40	5E	2A	20	80	0D	B3	98	...I....@^*.....	
00000160	EE	90	3F	2C	CA	F5	A5	8F	90	18	24	58	20	02	F9	F8	..?,.....$X....	
00000170	7F	B3	2A	E0	F5	CC	7D	38	29	D8	0A	8B	A9	77	D7	EB	..*...}8)....w..	
00000180	CE	6F	52	92	81	BB	C2	1D	EB	8A	48	F6	4E	7B	A2	11	.oR.......H.N{..	
00000190	FC	0A	40	2E	42	65	FA	63	BD	87	BD	4F	B6	B2	42	10	..@.Be.c...O..B.	
000001A0	5D	EF	9B	67	DA	FC	1C	08	2E	70	78	71	F7	A7	DC	43	]..g.....pxq...C	
000001B0	C3	CF	D9	61	FE	49	DE	46	30	B2	F8	0F	F0	04	14	2C	...a.I.F0......,	
000001C0	16	23	92	61	9C	07	F6	06	3C	3D	E0	44	7F	D3	97	D9	.#.a....<=.D....	
000001D0	FF	F9	AC	13	FF	FF	B4	44	14	6E	80	4A	02	98	6D	C6	.......D.n.J..m.	
000001E0	23	CA	61	DE	1D	A2	B7	89	F7	CF	97	F4	52	49	D5	9A	#.a.........RI..	
000001F0	12	2D	A0	66	1D	89	EC	4F	E9	EA	73	CF	F8	50	2A	08	.-.f...O..s..P*.	
00000200	4D	C4	39	C8	49	E4	42	0E	57	C0	75	F4	76	75	C3	84	M.9.I.B.W.u.vu..	
00000210	4C	0B	FA	47	A2	65	E1	C7	88	4F	C0	11	AD	BC	11	F6	L..G.e...O......	
00000220	3B	F0	79	9A	26	0B	9B	8D	88	3C	66	01	90	05	BA	23	;.y.&....<f....#	
00000230	F6	23	8A	EE	71	B5	A6	55	71	EF	C1	C4	4C	50	56	32	.#..q..Uq...LPV2	
00000240	6A	12	12	5D	86	1D	8C	77	B2	5B	F4	4C	1A	54	15	BC	j..]...w.[.L.T..	
00000250	3F	9D	E5	84	1A	8F	C8	6F	A6	71	E2	67	19	C3	F3	EF	?.....o.q.g....	
00000260	D4	2C	6F	19	9D	CE	2A	39	D4	57	97	EE	31	83	B1	A5	.,o...*9.W..1...	
00000270	8B	8F	8B	88	1F	8E	21	D7	D4	05	A1	CC	68	54	D9	8F	......!.....hT..	
00000280	1F	D2	A0	73	21	A0	37	1A	5E	40	04	38	2E	11	F5	1A	...s!.7.^@.8....	
00000290	5F	E8	6F	CD	82	4E	50	57	B2	2D	F9	83	B6	18	54	23	_.o..NPW.-....T#	

Package OLE Object

This technique is used to execute code like sct file to download an executable on the operating system. McAfee labs has detailed all this stuff with sct file: https://securingtomorrow.mcafee.com/mcafee-labs/dropping-files-temp-folder-raises-security-concerns/

Many attackers use it in the wild because it' very easy to use and it' supported by the office software with RTF files.

So, in our case, a file named 8.t is dropped on %TMP% folder.

If we check it, it's clearly encrypted.

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8.t encrypted

The others object ole seem to the exploit of CVE-2017–11882.

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```
00000860  00 00 00 4d 69 63 72 6f  73 6f 66 74 20 b9 ab ca  |...Microsoft ...|
00000870  bd 20 33 2e 30 20 d6 d0  ce c4 b0 e6 00 0c 00 00  |. 3.0 ..........|
00000880  00 44 53 20 45 71 75 61  74 69 6f 6e 00 0b 00 00  |.DS Equation....|
00000890  00 45 71 75 61 74 69 6f  6e 2e 33 00 f4 39 b2 71  |.Equation.3..9.q|
000008a0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
*
000008c0  00 00 00 00 00 03 00 04  00 00 00 00 00 00 00 00  |................|
000008d0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
*
00000900  00 00 00 fe fe fe fe fe  fe fe fe fe fe fe fe fe  |................|
00000910  fe fe fe fe fe fe fe fe  fe fe fe fe fe fe fe fe  |................|
*
00000a00  fe fe fe 45 00 71 00 75  00 61 00 74 00 69 00 6f  |...E.q.u.a.t.i.o|
00000a10  00 6e 00 20 00 4e 00 61  00 74 00 69 00 76 00 65  |.n. .N.a.t.i.v.e|
00000a20  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
*
00000a40  00 00 00 20 00 02 00 ff  ff ff ff ff ff ff ff ff  |... ............|
00000a50  ff ff ff 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
00000a60  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
00000a70  00 00 00 00 00 00 00 06  00 00 00 60 17 00 00 00  |...........`....|
00000a80  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
*
00000ac0  00 00 00 00 00 00 00 ff  ff ff ff ff ff ff ff ff  |................|
00000ad0  ff ff ff 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
00000ae0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
*
00000b40  00 00 00 00 00 00 00 ff  ff ff ff ff ff ff ff ff  |................|
00000b50  ff ff ff 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
00000b60  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
*
00000bc0  00 00 00 00 00 00 00 ff  ff ff ff ff ff ff ff ff  |................|
00000bd0  ff ff ff 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
00000be0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
*
00000c00  00 00 00 34 00 02 88 34  00 02 88 34 00 03 17 01  |...4...4...4....|
00000c10  00 01 03 2e 02 00 01 03  14 01 00 01 03 21 01 00  |.............!..|
00000c20  01 00 01 00 01 00 0e 02  8b 10 22 00 00 0c 02 96  |..........".....|
00000c30  94 21 00 00 00 00 01 00  11 0e 02 86 2b 22 02 86  |.!..........+"..|
00000c40  2b 22 02 86 2b 22 00 00  0c 01 00 11 0e 02 86 2b  |+"..+".........+|
00000c50  22 02 86 2b 22 00 00 0c  01 00 11 0e 02 86 11 22  |"..+"..........."|
00000c60  00 00 0c 01 00 11 00 00  01 00 00 00 01 00 0b 02  |................|
00000c70  96 38 fe 00 00 0a 02 96  90 21 00 05 01 01 01 04  |.8.......!......|
00000c80  04 00 00 00 00 01 12 83  64 00 12 83 64 00 12 83  |........d...d...|
00000c90  64 00 12 83 64 00 12 83  64 00 00 01 02 88 34 00  |d...d...d.....4.|
00000ca0  02 88 34 00 02 88 34 00  02 88 34 00 02 88 34 00  |..4...4...4...4.|
00000cb0  00 01 00 01 00 01 00 01  00 01 00 01 00 01 00 01  |................|
00000cc0  00 01 00 01 00 01 00 01  00 01 00 01 00 00 00 00  |................|
00000cd0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  |................|
*
```

Equation Ole Object

At the end of the object ole, we have differents API functions to make a runPE.

Another interesting thing is this string at the begin of the object: 7e079a2524fa63a55fbcfe

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```
00000e40  83 c1 40 ff e1 37 65 30  37 39 61 32 35 32 34 66  |..@..7e079a2524f|
00000e50  61 36 33 61 35 35 66 62  63 66 65 9b 15 45 00 00  |a63a55fbcfe..E..|
```

String found in many exploits of CVE-2017–11882

We have the same string used by APT SideWinder in the equation object ole.

It’s the same toolset to create the malicious document.

So now, we have to debug the malicious document to find how the file 8.t is used and find this runPE.

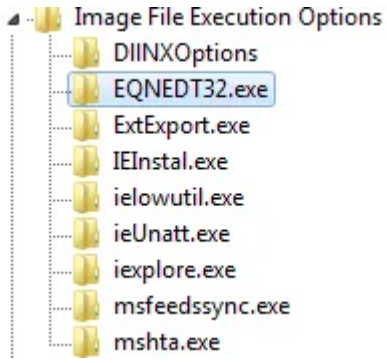
Debugging of the shellcode

At the start of the analysis, we think the process EQNEDT32.exe is created by Winword.exe using the function CreateProcess. So we decided to set a breakpoint at the call of his function.

But EQNEDT32.exe is invoked by Winword.exe using COM Object. It’s not CreateProcess that used and Winword.exe is not the parent process of EQNEDT32.exe. So we have to attach the debugger when EQNEDT32.exe is launched.

For that, we used a technique named Image File Execution Options that was documented by Microsoft. https://blogs.msdn.microsoft.com/mithuns/2010/03/24/image-file-execution-options-ifeo/

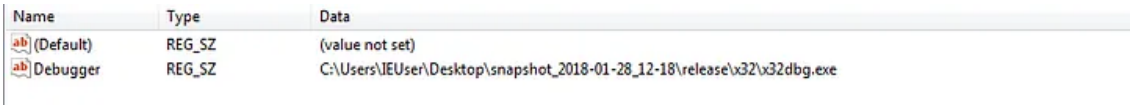
We create a key EQNEDT32.exe.



Registry HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Image File Execution Options

And we set a value string for launching the debugger when EQNEDT32.exe is executed and attaching the debugger to the process .

Press enter or click to view image in full size



Value to set the debuuger when EQNEDT32.exe is executed

When we open the rtf document, Winword is launched and EQNEDT32.exe also.

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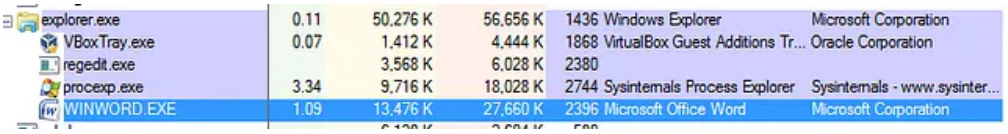

Winword process

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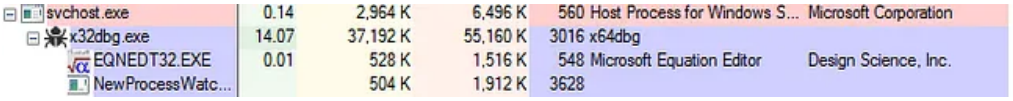
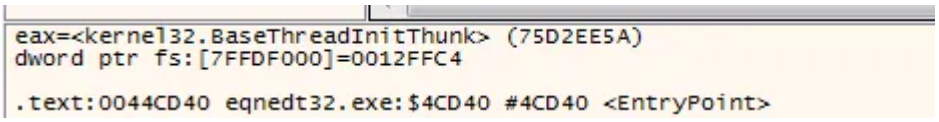
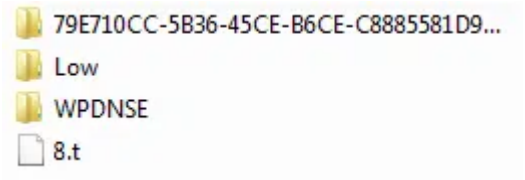


EQNEDT32.exe process attached by the debugger

And the debugger is attached at the entrypoint of EQNEDT32.exe.



We check if it’s 8.t is correctly created in the %TMP% folder.



8.t dropped on disk

Now we set a breakpoint at the createFile to check if the shellcode of the exploit reads the file 8.t.

CreateFile is called at call eqnedt32.41E5EE.

The param of the path of file is pushed on the stack push dword ptr ss:[ebp-4].

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The shellcode uses CreateFile to the 8.t in the %TMP% folder

So now, we can return of the user code at the calling function.

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After a step into, we enter in the shellcode, the address space has changed:

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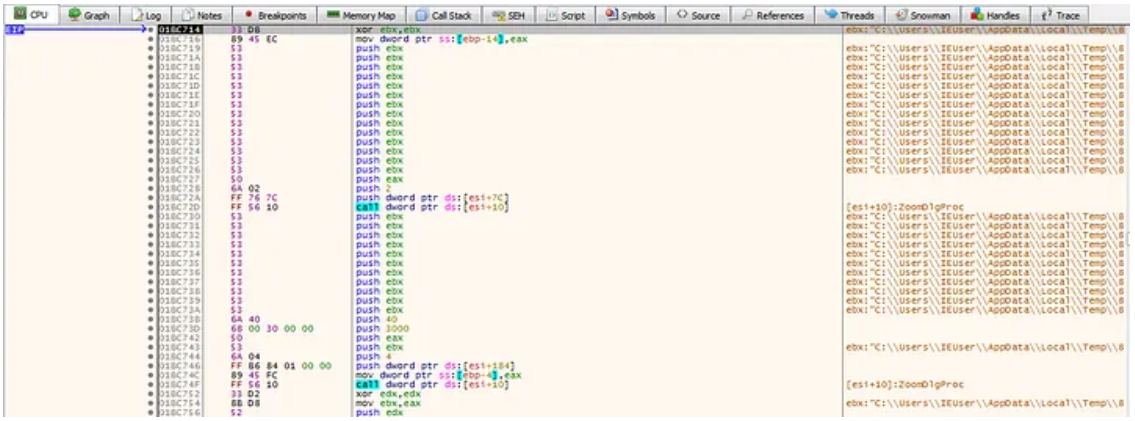

Shellcode of the exploit

After CreateFile, GetFileSize is called to have the size of the file

Press enter or click to view image in full size

Get the size of the file

After is Virtualloc, and it create a memory page at 1FD0000 (eax value)

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VirtualAlloc memory page to load 8.t

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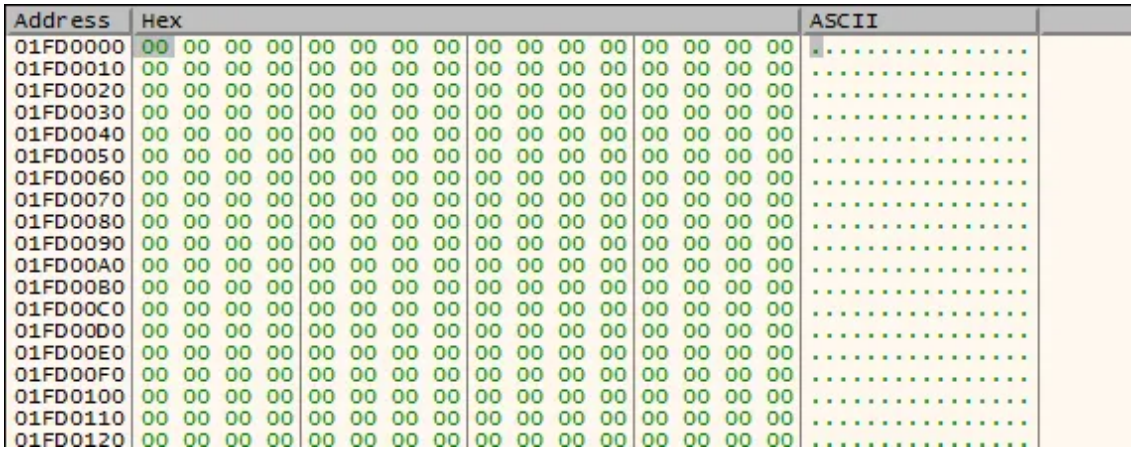
After virtualAlloc, the memory page is pointed by EAX



The page allocated

ReadFile is called:

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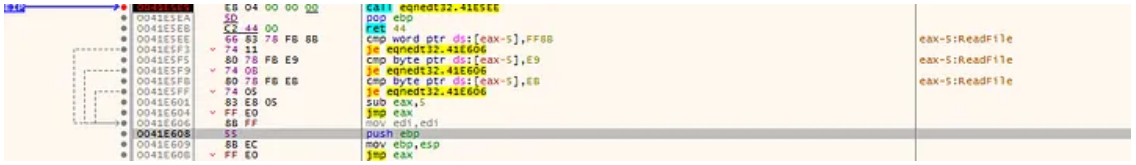

Readfile 8.t

And 8.t is loaded at 1FD0000:

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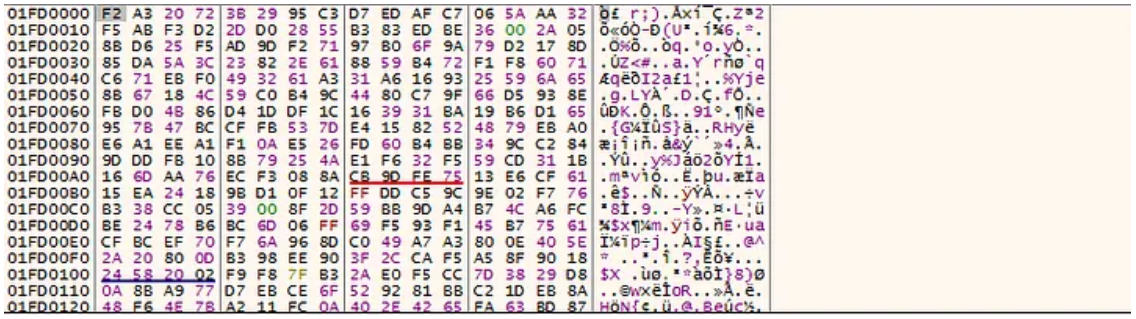


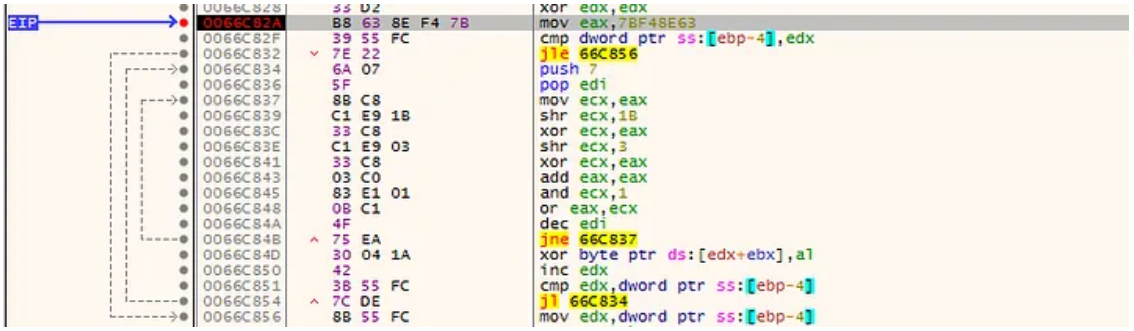
8.t in memory

And the shellcode decrypts the 8.t file in memory at 0066C82A.

The loop of decryption is a xoring with different manipulations on the decryption key.

At the start of the decryption the key is set to 7BF48E63.

Press enter or click to view image in full size



Decryption loop

And the xor is made after key manipulation.

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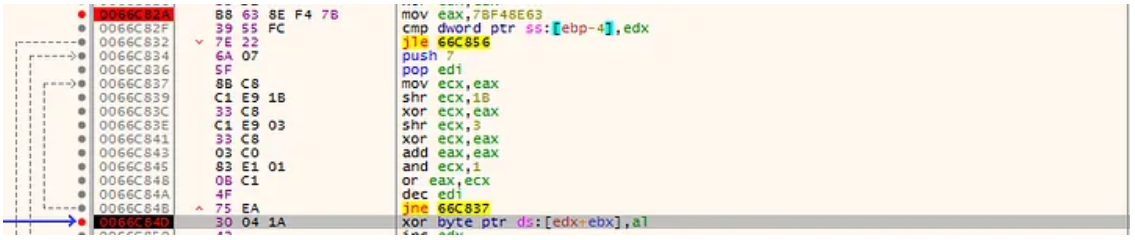
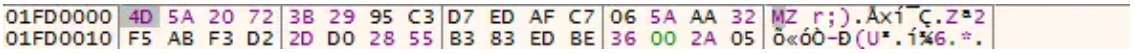


Set the decryption key in EAX

If we check the destination of the result of the xoring (here edx + ebx), we find 01FD0000 where 8.t is loaded.

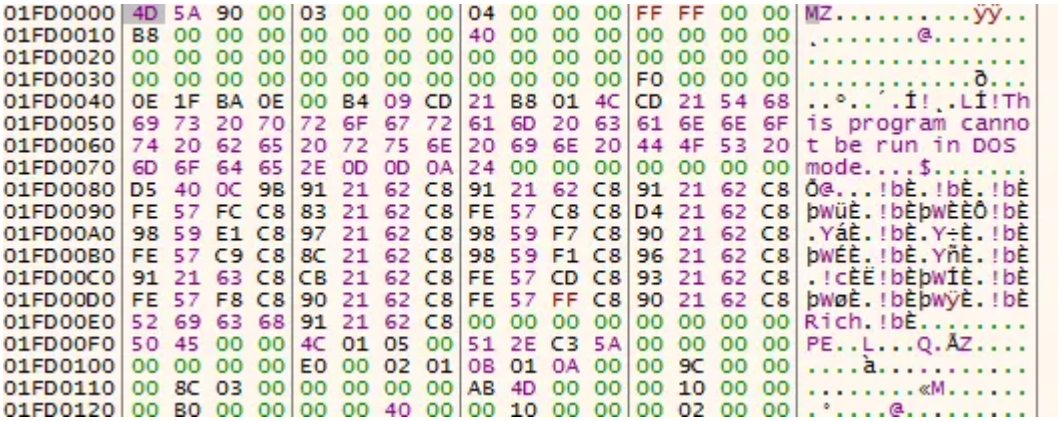
After two step of the loop, we can see the magic number MZ set at the begin of memory section.



MZ magic number

At the end of the decryption loop, we have a PE in memory at 01FD0000.

the file 8.t has been decrypted.



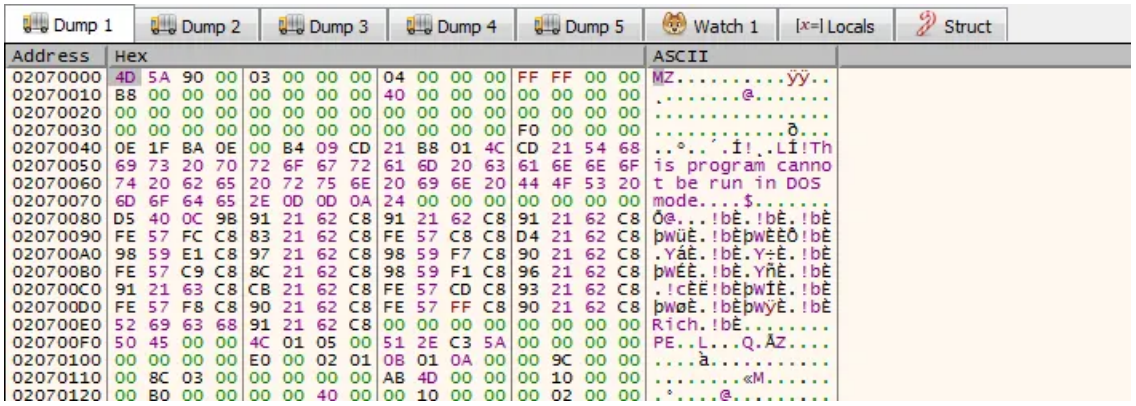
8.t fully decrypted

Then, the shellcode uses the VirtualAlloc and create a memory page at 02070000.

Press enter or click to view image in full size

And the new PE at 01FD0000 is copied at this address.

Press enter or click to view image in full size

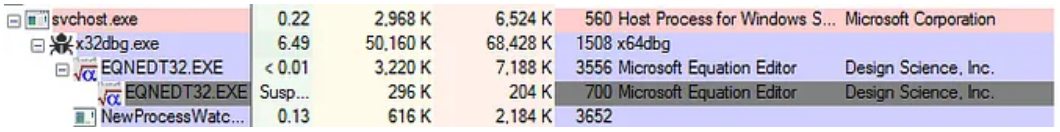


the PE decrypted is copied in the new memory page

After GetModuleFileNameA is called to have the path of EQNEDT32.exe

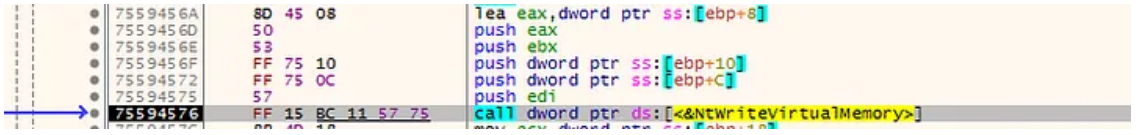
And EQNEDT32.exe is forked in suspend status by a CreateProcess and the shellcode overwrite it by the PE at the address 02070000

Press enter or click to view image in full size

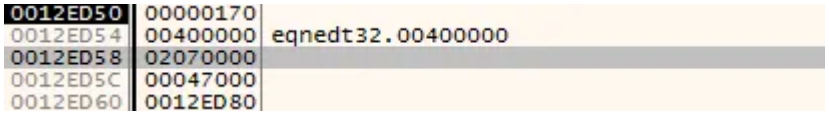


Fork of EQNEDT32.exe

Press enter or click to view image in full size



Overwritting of EQNEDT32.exe



Stack used by NTWriteVirtualMemory

And the shellcode does a ResumeThread to launch the new PE.

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So, We've found all API Calls in the object ole at the beginning and we have a runPE to launch the new EQNEDT32.exe overwritten.

Analysing the fork of EQNEDT32.exe

We know that this process has to create on disk two files following the Joe SandBox Analysis:

- A dll named RasTls.dll
- A executable file named dascgosrky.exe

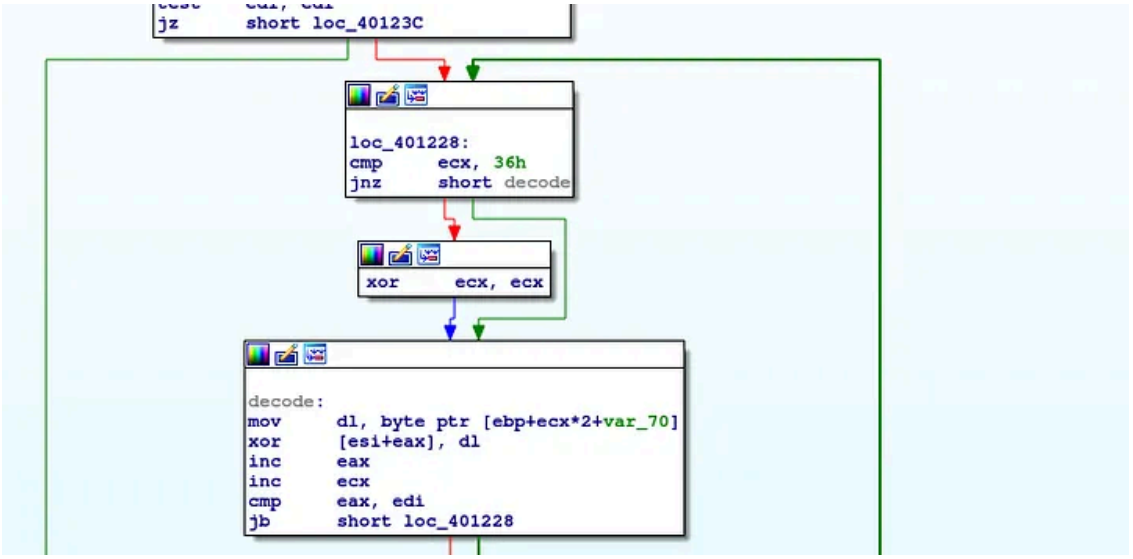
If we dump EQNEDT32.exe and we put in IDA, we found quickly the function that drops the files on disk (sub_00401150) renamed dropFiles.

Press enter or click to view image in full size

DropFiles Fucntion

And at the start of this functions, we have a loop with a xor.

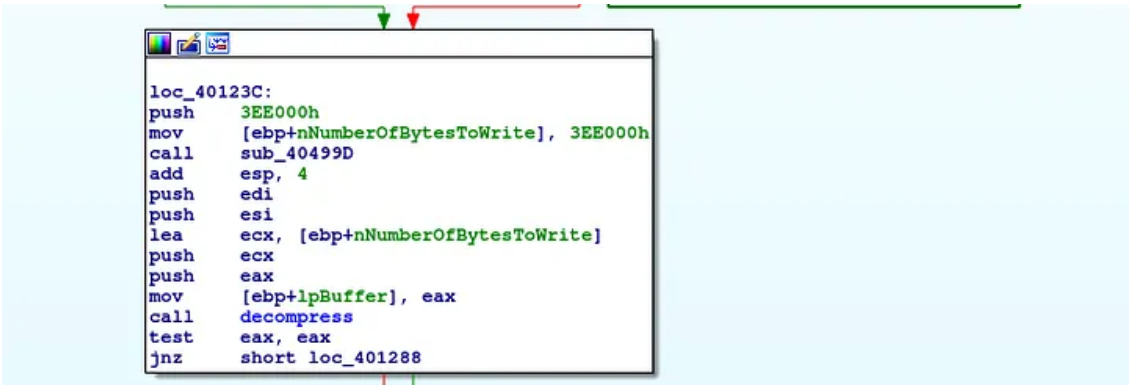
Press enter or click to view image in full size



Second loop of decryption

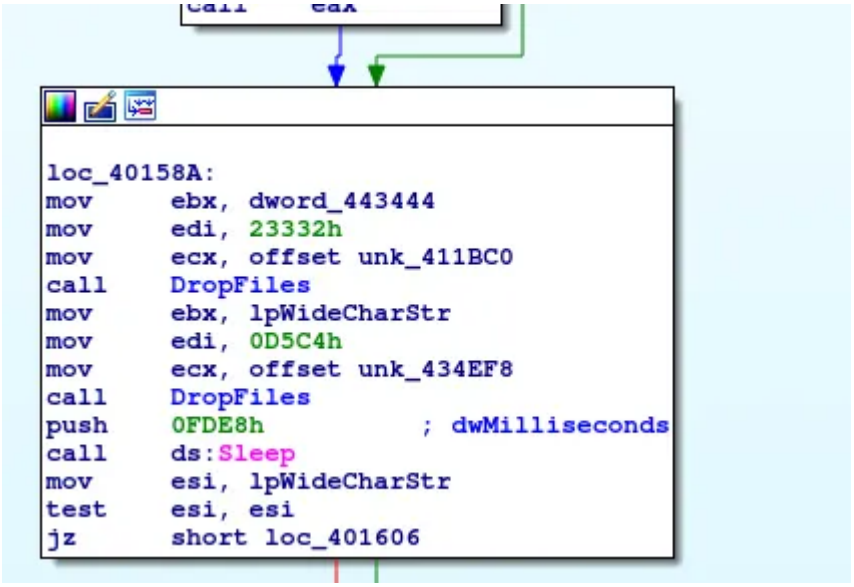
And just after we have a call of the decompression function.

Press enter or click to view image in full size



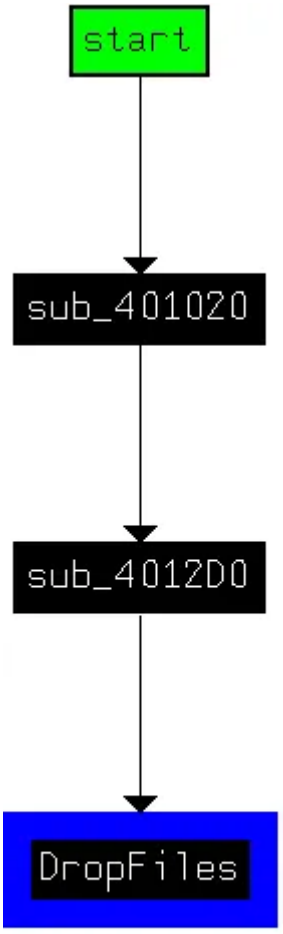
Decompression function used zlib

The function dropFiles is called twice by the sub_4012D0.



Drop the dll and the executable

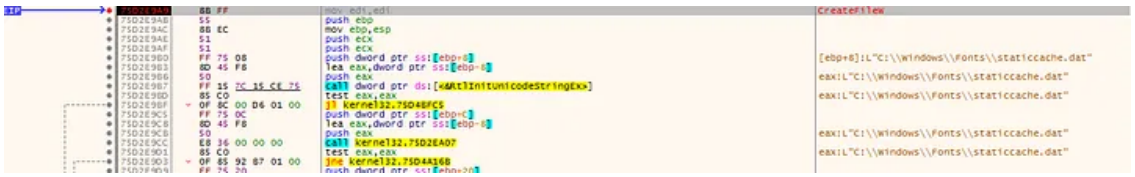
If we check the call graph, DropFiles is called only by the function sub_4012D0.



Functions using DropFiles function

So we set a breakpoint on CreateFile because at each execution, EQNEDT32.exe starts by CreateFile onstaticcache.dat.

Press enter or click to view image in full size



Breakpoint to createfile

And we return at the user code to set a new breakpoint to check the static analysis.

So we set a breakpoint at 0040159A when DropFiles is called.

Press enter or click to view image in full size

Breakpoint to the first call of DropFiles

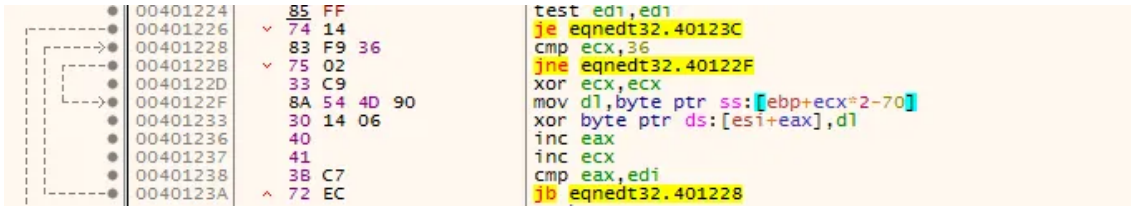
And now we can analyse the second loop of decryption.

The first step is the initialization of the decryption function.

Press enter or click to view image in full size

Set for the second loop encryption

And after we find the xor and store the result in esi+eax.



Decryption loop

In the first step of the decryption loop, the result is written to 411BC0 in the address space of EQNEDT32.exe.

```
00411BC0 7C 9D E5 7A 08 55 57 D2 D2 FA 98 1F 0A 3D 3A AA |.åz.UWÒÒú...=:ª
00411BD0 85 60 A1 8F 4F 61 E7 81 43 51 1B 59 4D 07 B7 47 .`¡.Oaç.CQ.YM.·G
```

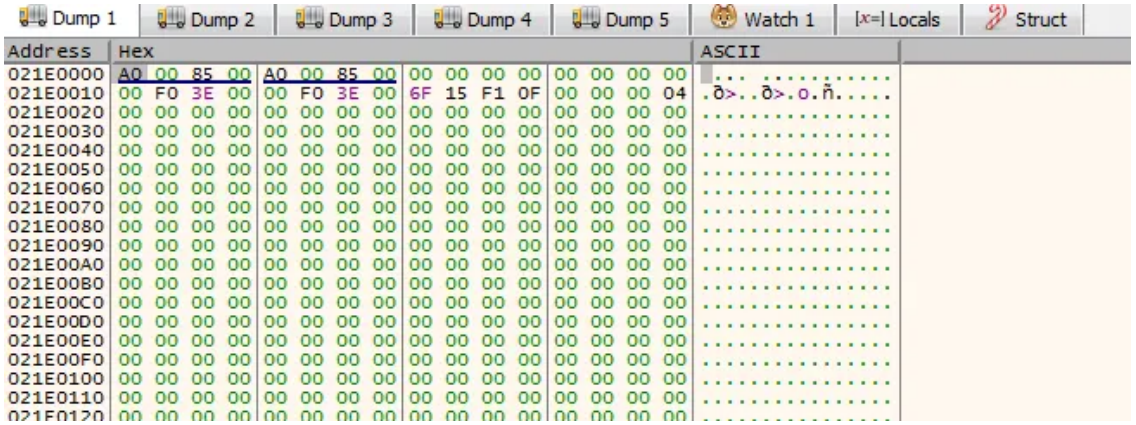
Before the decryption

After tree loops, we obtains the header of zlib compressed object.

```
00411BC0 78 9C EC 7A 08 55 57 D2 D2 FA 98 1F 0A 3D 3A AA x.ìz.UWÒÒú...=:ª
00411BD0 85 60 A1 8F 4F 61 E7 81 43 51 1B 59 4D 07 B7 47 .`¡.Oaç.CQ.YM.·G
```

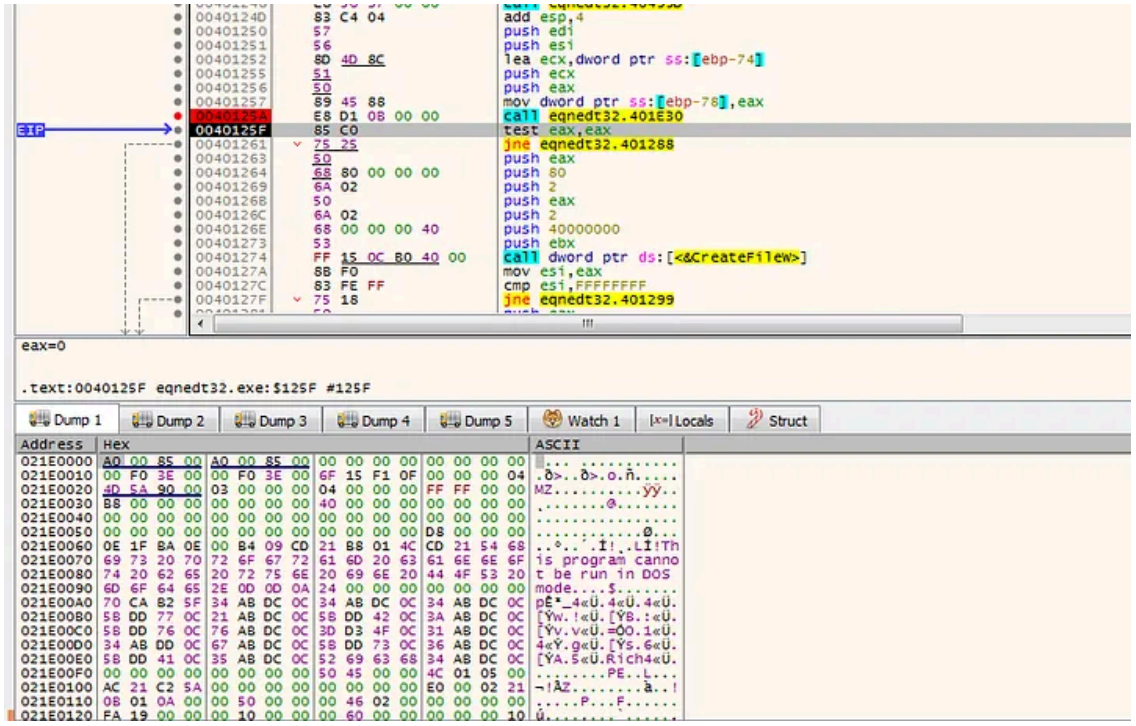
After the decryption

And at the memory page 021E0000, a PE is decompressed.



Page memory allocated to store the dll

Press enter or click to view image in full size



After decompression

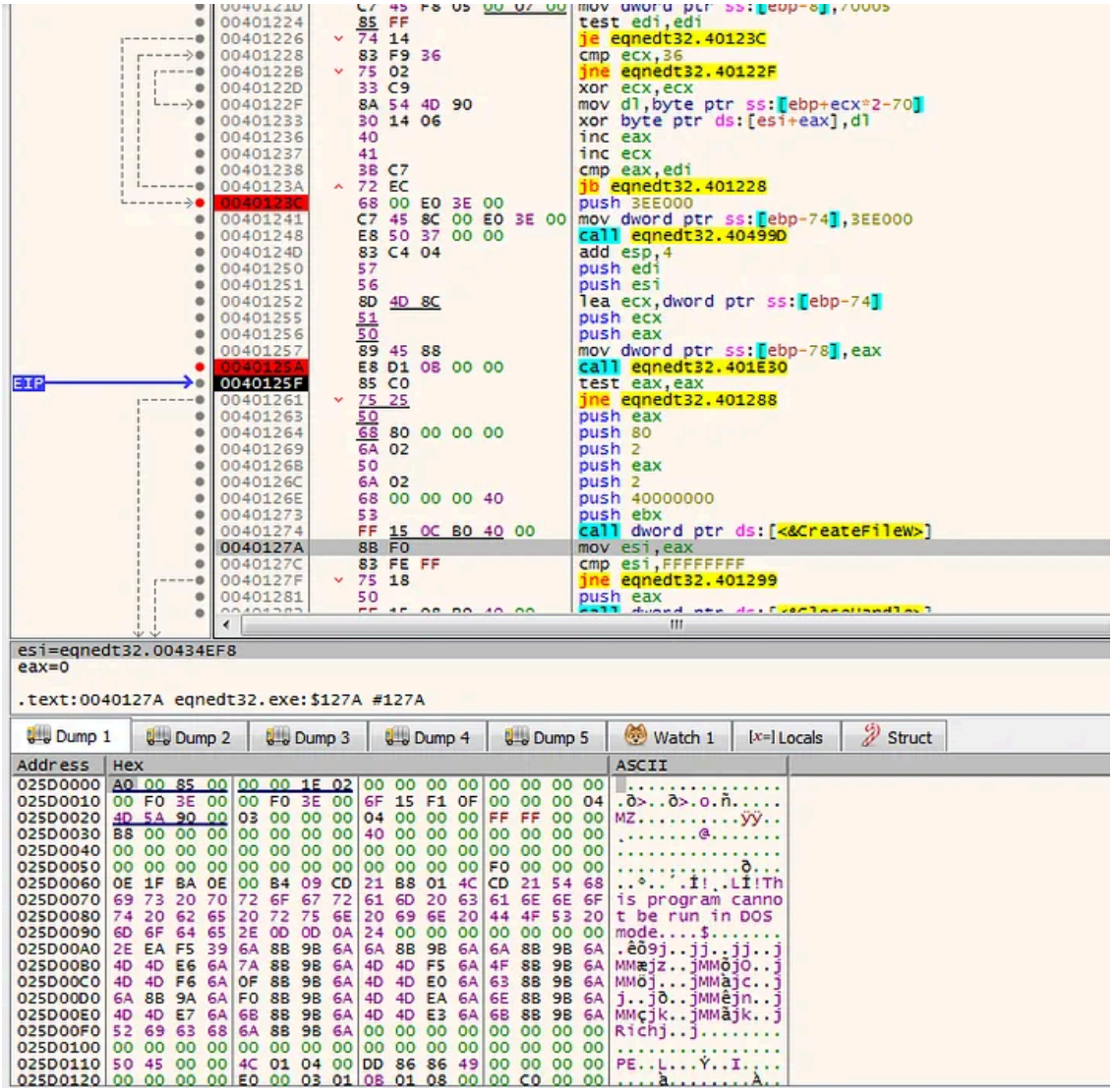
And after the file is created with the following path:
L”C:\\Users\\IEUser\\AppData\\Roaming\\Microsoft\\Windows\\Network Shortcuts\\RasTls.dll”

Stored by ebx.

DropFiles is called a twice to decrypt and decompress the executable file.

The offset where store the file is 00434EF8 and the pe decompressed is stored at 025D0020

Press enter or click to view image in full size

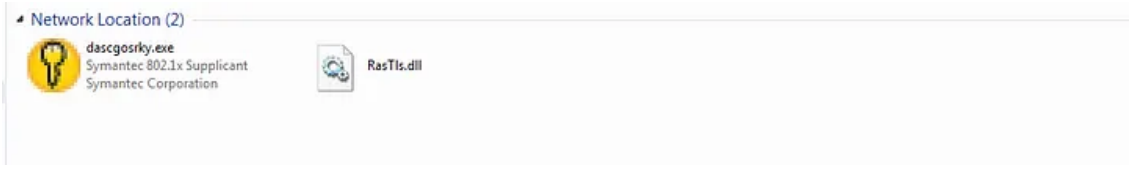


Decryption of the executable dascgosrky.exe

And the path of the new file is : ebx=005DA228
L”C:\\Users\\IEUser\\AppData\\Roaming\\Microsoft\\Windows\\Network Shortcuts\\dascgosrky.exe”

So we have two files in networks shortcuts of Windows.

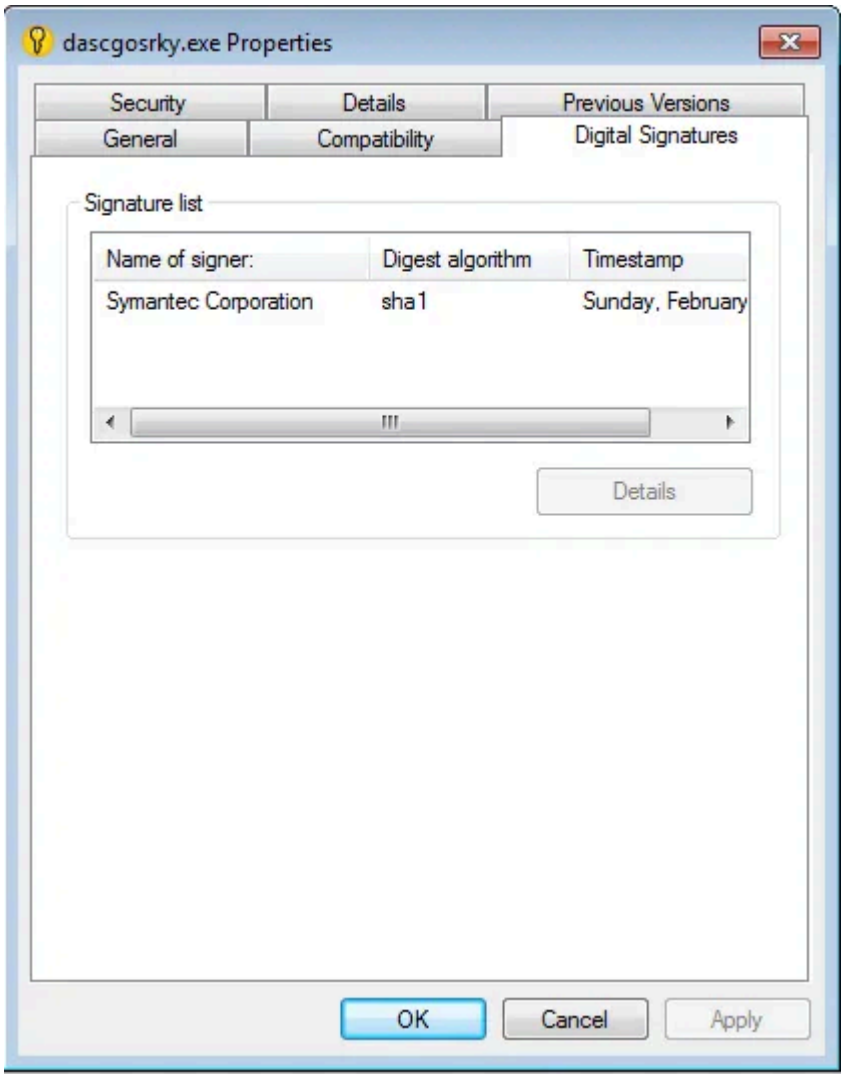
Press enter or click to view image in full size



Files drops on disk

dll hijacking

Dascgosrky.exe is a legit and trusted software develop by Symantec.



To load the library RasTls.dll, the executable calls LoadLibrary and GetProcaddress in sub_401940 to execute the malicious functions

Dascgosrky.exe loading the malicious

The original file

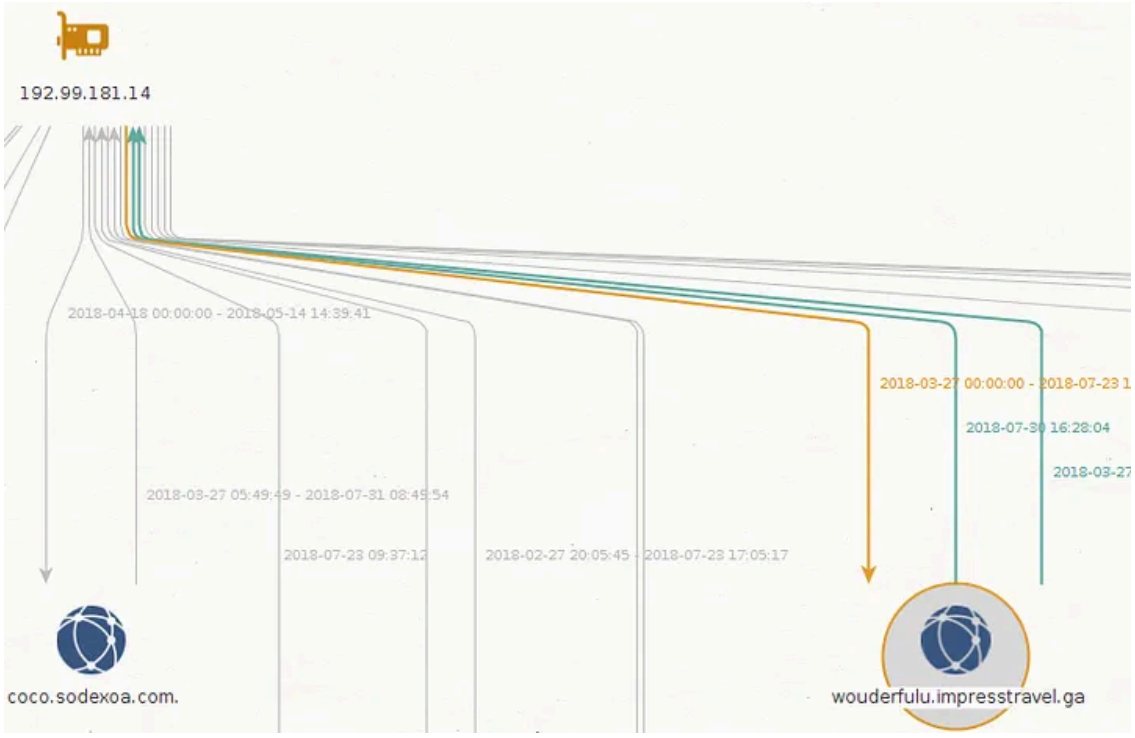
If we check the exports in IDA, we just have a dllentrypoint. The dll is executed like this.

We’ll analyse the RAT in the second Part.

Infrastructure of Attackers

The domain contacted is wouderfulu.impresstravel.ga and this domain resolved on 192.99.181.14.

Press enter or click to view image in full size

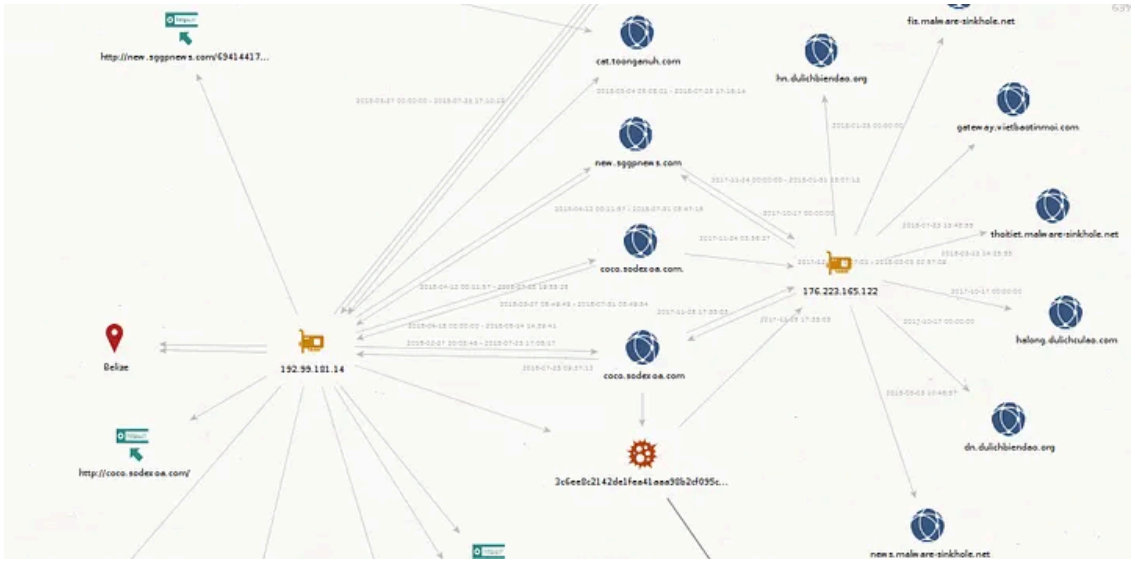


Domain wouderfulu.impresstravel.ga

This IP has differents domains found with PassiveTotal and theses domains is recorded in the IP 176.223.165.122.

Many domain names is used for Vietnameses people.

Press enter or click to view image in full size



Expansion of domains

There are two domains really interesting:

Halong.dulichculao.com is already used in the campaign targeting Vietnameses organizations.

https://www.fortinet.com/blog/threat-research/rehashed-rat-used-in-apt-campaign-against-vietnamese-organizations.html

For Fortinet is the Chinese hacking group 1937CN.

If we compare the TTPs, it's really similar. They used RTFs to make the intrusion and dll hijacking to load the real payload.

And the name of domains are really similar between the campaings.

The second one is:

Cat.toonganuh.com is a subdomain of tooganuh.com recorded by florence1972@scryptmail.com

Conclusion

The Chinese hacking group 1937CN continues to target Vietnam officials with the same TTPs with a refreshing on the tools used. The toolset used by this group to create RTF malicious document has the same properpy of the SideWinder.

I want to thank my buddies on "Zone de Confort". It's with this dreamteam, I can finalize correctly this analyses.

In the second part, we analyze the RAT using in this campaign. Or if another reverse can make that, I'll paid a beer ;)

IOCs for the paper:

domains:
dn.dulichbiendao.org
gateway.vietbaotinmoi.com

web.thoitietvietnam.org
hn.dulichbiendao.org
halong.dulichculao.com
cat.toonganuh.com
new.sggpnews.com
dulichculao.com
coco.sodexoa.com.
thoitiet.malware-sinkhole.net
wouderfulu.impresstravel.ga
toonganuh.com
coco.sodexoa.com

IPs:
192.99.181.14
176.223.165.122

RTFs:

42162c495e835cdf28670661a53d47d12255d9c791c1c5653673b25fb587ffed

8.t:

2c60d4312e4416745e56048ee35e694a79e1bc77e7e4d0b5811e64c84a72d2d7

PE:

f9ebf6aeb3f0fb0c29bd8f3d652476cd1fe8bd9a0c11cb15c43de33bbce0bf68 (exe)

9f5da7524817736cd85d87dae93fdbe478385baac1c0aa3102b6ad50d7e5e368 (dll)

Update:

The payload is PlugX. Thanks to Gabor Szappanos
https://twitter.com/GaborSzappanos/status/1024622354582908928

Update IOCs:

597c0c6f397eefb06155abdf5aa9a7476c977c44ef8bd9575b01359e96273486 59.rtf
11f38b6a69978dad95c9b1479db9a8729ca57329855998bd41befc364657d654 RasTls.dll
f9ebf6aeb3f0fb0c29bd8f3d652476cd1fe8bd9a0c11cb15c43de33bbce0bf68 RasTls.exe

b70069e1c8e829bfd7090ba3dfbf0e256fc7dfcefc6acafb3b53abcf2caa2253 b7.rtf
77361b1ca09d6857d68cea052a0bb857e03d776d3e1943897315a80a19f20fc2 spoolsver.exe
9fba998ab2c1b7fec39da9817b27768ba7892c0613c4be7c525989161981d2e2 vsodscpl.dll

9d239ddd4c925d14e00b5a95827e9191bfda7d59858f141f6f5dcc52329838f0 9d.rtf
087d8bee1db61273a7cd533d52b63265d3a8a8b897526d7849c48bcdba4b22ec RasTls.dll
f9ebf6aeb3f0fb0c29bd8f3d652476cd1fe8bd9a0c11cb15c43de33bbce0bf68 RasTls.exe

332aa26d719a20f3a26b2b00a9ca5d2e090b33f5070b057f4950d4f088201ab9 rtf

93aa353320a8e27923880401a4a0f3760374b4d17dcd709d351e612d589b969d vsodscpl.dll

77361b1ca09d6857d68cea052a0bb857e03d776d3e1943897315a80a19f20fc2 ScnCfg.exe

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